

A MONTHLY JOURNAL DEVOTED TO THE ELEVATOR AND GRAIN INTERESTS.

PUBLISHED BY
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(INCORPORATED.)

Vol. I.

CHICAGO, ILLINOIS, JUNE 15, 1883.

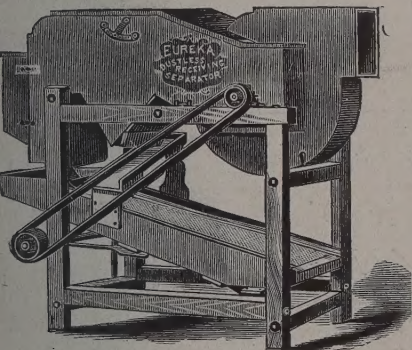
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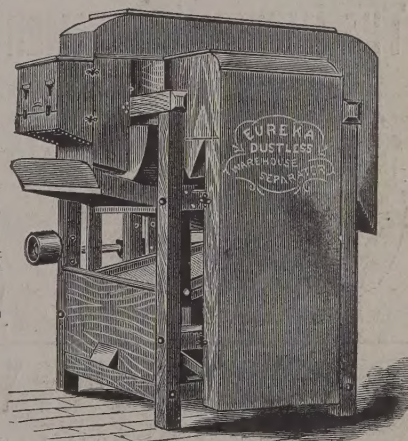


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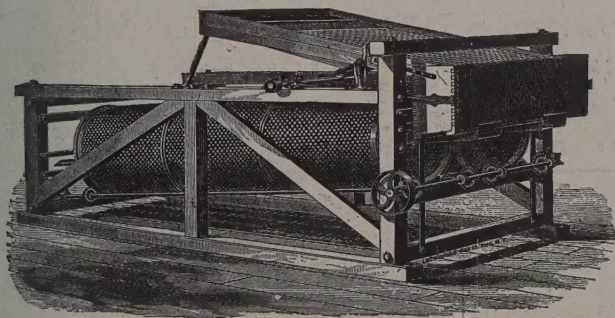
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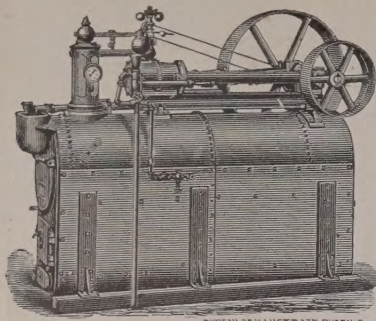
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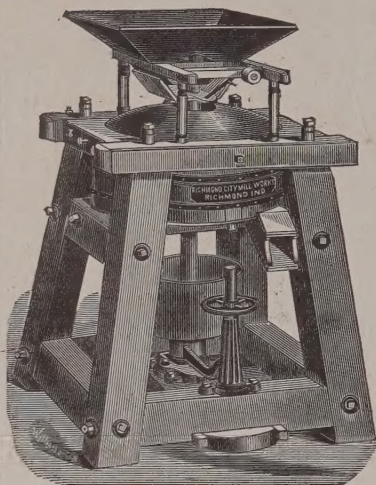
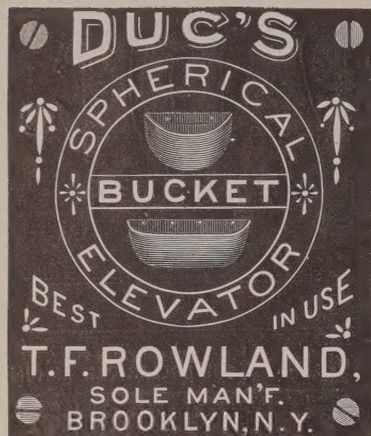
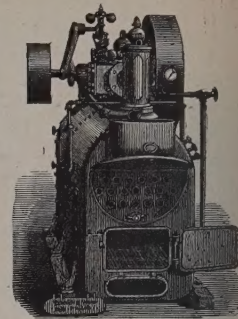
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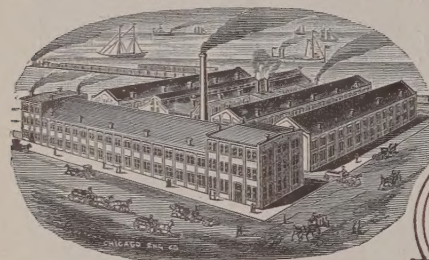
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Elevator Builders and Elevator Owners to the
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the past two years:

St. Paul Elevator.....	Chicago.
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We also furnish at short notice. Elevator Buckets and Bolts, such as are used in the above-men-
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Narrow Gauge Elevator.....	Toledo.
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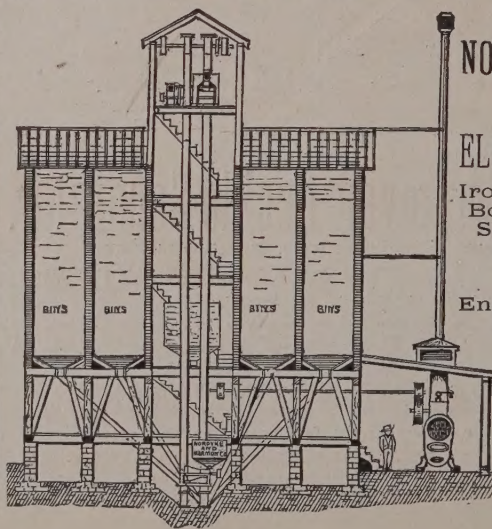
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ELEVATOR MACHINERY,

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Boots, Elevator Cups,
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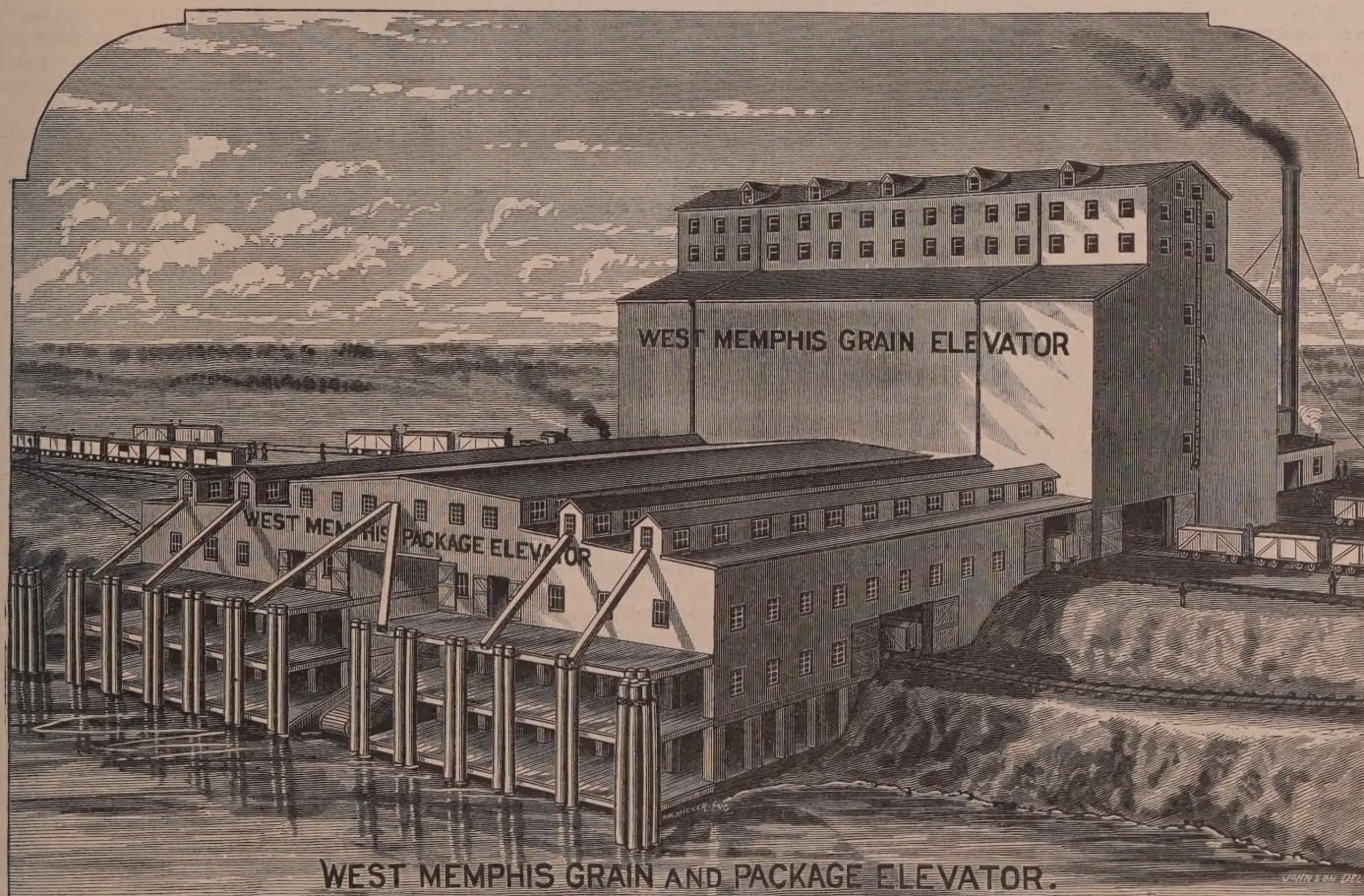
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WEST MEMPHIS GRAIN AND PACKAGE ELEVATOR.

The best construction for grain elevators is a matter of importance, commensurate with the steadily increasing demand and use for these houses. The evident

which is being built on the Watson Plan. The elevator is located on the Mississippi River, opposite Memphis, Tenn., and is 200 feet from low water. Its main object is to store grain received by rail to be shipped South by barges. The Grain Elevator will have a capacity of 500,000 bushels. There will not be a spout in the entire

elevator leg into any scale hopper. Apparatus for unloading cars will be attached to each elevator head, so that no machinery need be running except when in actual use. When elevating grain from bins, the shovel machinery need not be running. No matter how much or how little machinery may be in use at any one time,



WEST MEMPHIS GRAIN AND PACKAGE ELEVATOR.

objects are, that while the construction should be simple and economical, both in their first cost and their subsequent operation, they should also combine durability with the greatest practicable facilities for convenience and rapidity in handling grain.

We present to our readers on this page an illustration of the West Memphis Grain and Package Elevator, now being constructed by the Kansas City, Springfield & Memphis Railroad Co. at West Memphis, Ark., and

building, except the revolving spouts under the scale hoppers. Five rubber belts, 200 feet from centers of pulleys, are so arranged as to deliver grain to all the hatches of a barge at the same time, each belt delivering 6,000 bushels per hour. It is intended to load 50,000 bushels into a barge in one hour and a half. Small engines will be used at the head of each elevator. A drag belt will pass between the tops of scale hoppers and heads of elevators, in order to deliver grain from any

there will not be a single piece, nor a foot of shafting in motion not actually required to handle the grain.

The Package Elevator will have a floor surface of 55,000 square feet, will be three stories high, and will rest on heavy piles, and built in the most substantial manner. There will be a package leg for unloading boats at any stage of water. Two tracks will pass through the building, the lower one to be used at low stage of water. A 30-horse power engine will be located

on the upper floor near the center of the building, to furnish the power for the package leg, and also for the five drag belts that convey grain from the elevator to the barges.

The sides of the building will be covered with corrugated iron, a gravel roof on the Package Elevator, and a slate roof on the Grain Elevator. No engine house is required. The boiler house is placed fifty feet from building, and the steam conveyed to the several engines through well-protected pipes; no fire will be necessary in any part of the building. The cut gives a view from the river of both buildings. The plans for the entire structure were furnished, and the work is superintended by Wm. Watson, architect and builder, Chicago, Ill.

HISTORY OF THE NEW YORK PRODUCE EXCHANGE.

BY THEODORE PERRY.

In the spring of 1860 Mr. Amos M. Sackett came to my office and said to me that his father-in-law, Mr. Staats M. Mead, who owned the stores alluded to, was desirous of selling the property, and he asked me if a company could be formed to buy it and convert it into an exchange, for which it was well adapted, as it occupied an entire block and had light and frontage on four streets. He requested me to undertake the work of getting subscriptions and organizing such an institution, and after due consideration and consultation with some friends as to its feasibility, I informed Mr. Sackett that I would undertake the enterprise. A price for the property was agreed upon. I purchased subscription books, took one in my hand, gave the others to a few friends, and within a few days we obtained subscriptions to the extent required, and the first step of what seemed an important and difficult undertaking, was accomplished. We were aided in our work by the subscriptions of real estate owners in the vicinity. The provision trade subscribed liberally and generally; the flour and grain dealers rather less so.

But none of the five large receiving houses of flour and grain would subscribe a dollar. On the contrary, these firms, who received more largely than all the rest of the trade united, opposed the new exchange with all their influence, which, of course, was very great. They owned most of the stock of the Corn Exchange, on which the breadstuffs and provision trade then transacted business. It was on the ground floor of the building at the corner of Broad street and South street. The partition walls of several adjoining buildings had been knocked away and the space thrown into one room. About 1,000 men used to gather here under a ceiling fourteen feet high. The members were generally much dissatisfied with the premises, which were dark and were considered unhealthy, and the ventilation was imperfect; but the members could not get redress because the stock was in the hands of a few men who elected their own friends as managers. They used to point with pride to the Corn Exchange when the men of the West or South would visit the Empire City, and as these visitors surveyed the novel piece of architecture, an involuntary twinkle of the eye would occur, and an invisible smile (in the sleeve). It was this general dissatisfaction of the members with the arbitrary rule which had lasted for several years, that inclined them to favor the new enterprise and made the task a comparatively easy one for its projectors.

After the subscriptions were completed and the property was purchased, an architect was chosen to alter the brown-stone buildings into an Exchange, but it was not feasible. The buildings were then taken down, and it was found that a new one could not be erected without driving piles to support the foundation, which was accordingly done and a contract made for the new edifice. If these large additional outlays had been anticipated at the beginning, the enterprise would not have succeeded.

The chief men of the Corn Exchange refused to co-operate, but in less than a fortnight after we opened they yielded and joined the new institution.

The first business of the new Exchange was to pass a code of rules and by-laws. In order to guard against the evil which had been the ruin of the Corn Exchange, viz: The concentration of the stock in a few hands. There were two bodies organized: First, the Produce Exchange Company, which owned the building, and Second, the frequenters of the Exchange who were organized under the name of the Commercial Association. The former leased the building to the latter at so much per member, and the latter, having one vote each, elected all the officers and managers to regu-

late the affairs that belong to such a body, viz., the rules governing transactions between members, prescribing penalties for dishonorable dealings, etc.; in short, they regulated everything except the care of the building, which was the business of the other organization.

Finally, in the year 1872, the members were assessed \$200 each, for which stock was issued, and with the money thus raised the building was purchased from the Produce Exchange Company, which divided 151 per cent. among its stockholders, and then ceased to exist. The Commercial Association meantime, had changed its name to that of the New York Produce Exchange, under which it is now known, and the shares which cost the members \$200 each are now worth about \$3,000.

The charter of the Produce Exchange contains a most beneficent provision quite new at the time when we organized, and so far as I am aware, possessed by no other exchange in the country. I refer to the clause authorizing us to elect an Arbitration Committee, whose decisions go on record as a judgment of the Supreme Court, and as there is no appeal allowed, it is as final as a judgment of the Court of Appeals.

THE BUCKET SHOP ON THE PACIFIC COAST.

Our friends on the Pacific Coast are not to be deprived of the facilities for doing business and making money rapidly, that are afforded to the fast dealers of Chicago by our "bucket shops." San Francisco is now honored with such a company, styled the California Speculating Society, that in its promises vividly recalls the group that recently escaped the affectionate greetings of their numerous patrons throughout the country by a health trip to Canada. We furnish below an exhibit of the results of this society's operations for a little over three months:

PROFITS FOR THE SECOND WEEK IN MAY, 9½ PER CENT.

MAY PROFITS.	
First week in May.....	Per cent. 12

APRIL PROFITS.	
First week in April.....	9
Second week in April.....	15
Third week in April.....	11
Fourth week in April.....	13

Total profits for April..... 48
Or \$4.80 on each share. April profits paid on April 30.

MARCH PROFITS.	
First week in March.....	7½
Second week in March.....	14
Third week in March.....	9½
Fourth week in March.....	11

Total profits for March..... 42
Or \$4.20 on each share. March profits paid March 31.

FEBRUARY PROFITS.	
First week in February.....	11
Second week in February.....	8
Third week in February.....	7
Fourth week in February.....	9

Total profits for February..... 35
Or \$3.50 on each share. February profits paid Feb. 28.

Money invested with us for the month of March received on each \$10 as follows:

Invested.	Profits.
\$ 10.....	\$ 4.20
30.....	12.60
50.....	21.00
70.....	29.40
100.....	42.00
200.....	84.00
500.....	210.00
1,000.....	420.00
Making 42 per cent., or \$4.20 on investment for thirty days.	

The company announce in all their documents that "shares are only \$10 each." The prospectus and brilliant promises made are of a style to indicate its true character to any intelligent observer of the world's business. The parties interested have no rating at the mercantile agencies, or the commercial boards. They distribute their printed matter exclusively away from home, and the press and dealers of San Francisco receive inquiries as to its character, etc., from Oregon and other distant locations. *The Gracer*, of San Francisco, pays its earnest respects to this brood of harpies, and offers to publish any facts or experiences that may benefit the public, and contribute to a general understanding of the true nature of these gambling firms.

Fully 80 per cent. of the total area of fall wheat in Ontario lies west of the meridian of Toronto, and unfortunately the most discouraging accounts of the crop are received from that part of the province. There is indeed a singular contrast in the reports for eastern and western sections; for, while those for the one agree in saying that the prospect has not often been worse, those for the other are not less unanimous in saying that it was never better.

INSECT ENEMIES OF CORN.

At this particular season a lecture by Prof. S. A. Forbes, State Entomologist of Illinois, upon insects affecting corn, will have peculiar interest. The Professor says, in introducing his subject, that the losses to the agriculture of Illinois, to be attributed to insects, in any one year are doubtless to be reckoned, not by thousands or by hundreds of thousands of dollars, but by millions. Dr. Thomas made a careful study of this subject and estimated that the injury to the crop alone from the ravages of a single insect in a single year amounted to fully 20,000,000 in Illinois alone. Add to this the injury done to other crops by all other insects, and the aggregate loss of labor, time and food, is enormous.

Prof. Forbes remarks that the life histories of insects lie at the foundation of the whole subject of economic entomology; they constitute, in fact, the principal part of the science, for until these shall have been clearly and completely made out for any given species, it will be impossible to tell when, where, or how, to strike at the weakest point of that species. A knowledge of the conditions favorable or unfavorable to it, of the enemies which prey upon it, the diseases to which it is subject, and the effects of the various phases of the weather, is needed. "We should," he says, "make, in fact, a thorough study of it in relation to the whole system of things by which it is affected. Without this we shall often be exposed to needless alarm and expense, perhaps in fighting with artificial remedies an insect already in process of rapid extinction by natural causes; perhaps giving up in despair just at a time when the natural checks upon its career are about to lend their powerful aid to its suppression. We may even, for lack of this knowledge, destroy our best friends under the supposition that they are the authors of the mischief which they are really exerting themselves to prevent."

To the practical question, What shall the farmer do to protect his crops? the treatise says that all practical methods of fighting injurious insects must be tried—first on a small scale and under conditions which the experimenter can control completely, then on the larger scale of actual practice. These experiments must be repeated under varying circumstances until it shall be certain that all chances of mistake or of accidental coincidence shall be removed.

"The corn plant has its full share of faithful and devoted insect enemies. Every part of the plant, at every stage of its growth, from its cradle in the earth to its grave in the granary, is regularly taxed to support a ring of plunderers who have fastened themselves upon it, draining its life and appropriating its substance, without the pretense of rendering it any benefit in return. They are as ubiquitous as the assessor, and as thorough-going in their scrutiny of the resources of their victims as the Tariff Commission. Against them the helpless plant has no defense except the energy of its growth and the magnificent vigor of its constitution. There is, in fact, no limit to their exactions except the general rule of Nature, not utterly to kill the goose which lays the golden egg; and even this rule is sometimes broken under stress of peculiar temptation. The kernel in the earth is attacked by wire worms even before it has sprouted; and the springing shoot has hardly appeared above ground before the cut-worm gnaws it off and drags it away. The young roots are eaten up by the white grub, drained by the root form of the corn plant-louse, and bored by the corn root-worm; the last insect keeping up its deadly work until the ear has formed. No sooner is the stalk big enough to bore than the stalk-borer plows its way up and down and around about in its succulent tissue. Upon the leaf and the tassel, and even the husk of the young ear, the innumerable hordes of the aerial form of the plant-louse take up their abode, uninterruptedly drawing off its life blood by day and by night, through their hundreds and thousands of tiny pumps, and the chinch-bug also joins in with its irresistible attack. By the time the silk begins to sprout from the tip of the ear, the new-born beetle of the corn root-worm is climbing up the stalk from its birthplace in the ground, in search of it, and soon proceeds to mow it away with all the energy of a youthful appetite; and, about the same time, the corn-worm penetrates downward beneath the husks, and begins to mine, and burrow, and gnaw a devious and disgusting track through the grain itself—a proceeding which it often keeps up until after the ear is ripe. Even when the corn is husked and stored in the bin it is liable to the attack of the weevil, and when reduced to meal the meal-worm may infest it."

ELEVATOR BUILDING IN THE EAST.

While grain elevators at railroad stations through the West have long been in general use, it is only within a few years that elevators of limited storage capacity for a local trade have been largely built through the East. These houses are arranged to receive from cars and load out to wagons, distributing in comparatively small quantities. Not only grain is so received and handled, but bran and ground feed of all kinds.

The accompanying cut represents one of these houses as planned by the Chase Elevator Co. Similar elevators have been built by their plans at Poughkeepsie, N. Y.; Beverley, Mass.; Waterbury, Conn.; Westminster, Md.; Mount Joy, Allegheny, and Easton, Pa. Many more are projected for the coming season. These elevators are built either side or end to railroad track. The machinery is all concentrated in one end of the building and this part of the house is three stories high; on the first floor the work is done, the second story is filled with hoppers shipping bins for trading out to cars and wagons, the third story contains the hopper scales which weigh the grain as soon as received, a car load at a time. Concentrating the work in one part of the building saves, not only power, but labor also. All the work is under the immediate supervision of one superintendent, and one high priced man is all that is required to run the house; the rest is all cheap labor. The superintendent or weigh master, with one assistant, can operate a house taking in at the rate of twenty or thirty cars a day. The saving of labor is an important consideration in these houses, as the expense of operating is thereby much reduced.

The railroad companies through the East are favoring and encouraging the building of elevators for receiving and storing to supply the local demand, as it saves their cars largely to have suitable accommodations for unloading. A number of car loads of grain can be taken into an elevator, weighed and put in store as fast as the grain can be shoveled from the car, but these same cars if waiting to have grain sacked from them will be kept standing on the switch for days.

Some of these elevators have conveniences for sacking to a large extent. The sacking is done on the lower floor, the grain being drawn from hoppers bins overhead. The storing of bran is also largely engaged in. The bran is received in car-load lots, handled by belt and buckets, and stored in bulk. A Chase Elevator of 75,000 bushels storage at Poughkeepsie, N. Y., handles and stores bran exclusively.

A valuable attachment to some of these elevators is a run of stone for grinding feed and corn meal. From one to three run are usually supplied and meal can be ground fresh daily, at a comparatively small expense. The stones are adjusted to grind either fine meal or coarse feed, they are not expensive, and are easily operated in connection with a grain elevator. Very little extra power is provided, as the whole force of the engine may be employed to run the mill or mills when the elevator is not in active operation. The corn mill stands on the lower floor and a small elevator carries the ground grain to the second floor, where it is bolted. A mill grinding seventy-five bushels of meal a day can be attached to an elevator at an expense not exceeding \$200. The ease and simplicity with which a corn mill can be attached to a grain elevator is now generally understood, and many houses designed to supply a local trade are equipped with them. A Chase Elevator just completed at Beverley, Mass., for I. W. Dodge, has three run of stone attached, and one at Allegheny, Pa., for John P. Dean & Co., has two run attached.

The business done by these Eastern elevators, viz.: Receiving Western grain in car-load lots, cleaning, grinding, and distributing to supply a local demand is quite similar to the business done by elevators in those Southern states

where Northern grain is used to supply the demand. Chase Elevator Co. have lately supplied plans for elevators built at Augusta, Savannah, and Atlanta, Ga.

The cost of an elevator for a distributing trade is comparatively small, because the handling capacity required is not large. An 18,000 bushel house handling ten cars a day, fitted with two elevators, scales, and all fixtures complete, can be built for \$4,000. A 100,000 bushel house, as represented by cut, capable of handling fifty cars a day, can be built for less than \$16,000. For sketches and estimates, address CHASE ELEVATOR CO., 155 La Salle street, Chicago.

A MAMMOTH CORN CRIB.

It has frequently happened on account of "corners" and the prices thus caused, that very little grain was shipped East, when the incoming grain accumulated at Chicago to such a degree that the numerous elevators were filled to their utmost capacity, while thousands of cars, loaded with grain, had to remain on the tracks waiting for room in the elevators. Great inconvenience has been caused by such incidents to the railroad companies, who thereby were getting short of cars for their regular traffic.

In the fall of 1881, when such an event had just occurred, Messrs. Armour, Dole & Co. concluded to put up a cheap structure, intended to be used as a reserve stor-

spouts leading to the cars placed upon a second track outside of the shed, or into transfer spouts for the purpose of shifting the grain from one end of the building to the other, or transferring it from one bin into another. Six track scales are placed in the shed for weighing the grain in the cars.

It seems the simplest thing about the elevator to see the cars run through, and their weights recorded, as each stops prior to the elevation of its load. But, in no part of the machinery connected with the building, is such exactness as to results, and stability under constant and heavy use, required, as in the weighing machines. The grain is bought a thousand miles away, by weight, it comes here for storage, and is weighed to ascertain the correctness of the amount sent. Again, when it is shipped out, the weight is taken as a basis upon which a sale is made; and a very slight variation would cause a large discrepancy in the immense quantities passing constantly over the scales.

When it is considered that the elevator has a capacity of over 1,000,000 bushels, it can readily be seen that in handling such vast amounts of produce, the value aggregating many thousands of dollars a day, risks could not afford to be taken in the way of unreliable or variable weights, and therefore it was, that after investigating the matter fully, Fairbanks' Standard Iron Frame Track Scales were placed in this elevator to do the weighing.

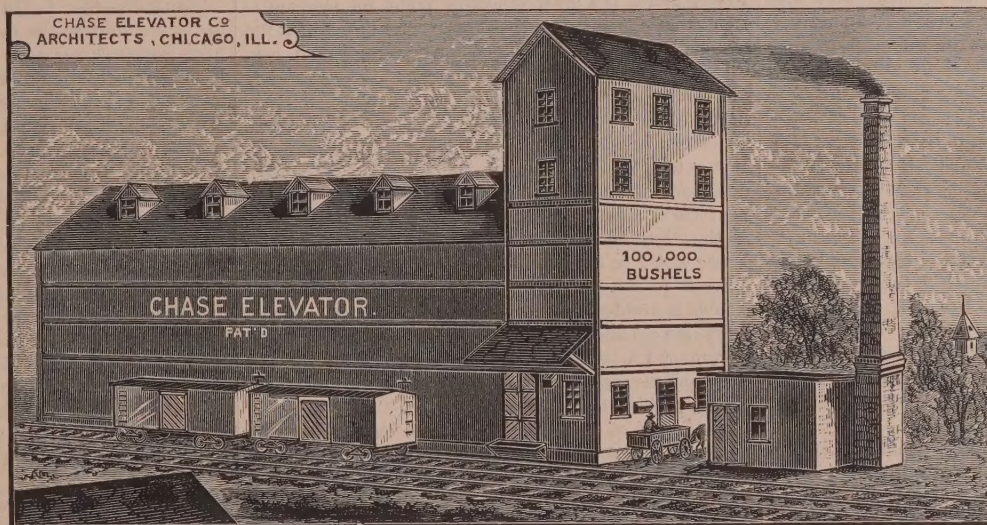
Six of these scales, of 80,000 pounds capacity and thirty-four feet long, are placed in the track way, running the length of the building, having a space of about thirty feet between each scale and its neighbor. A train of eleven cars is run in, leaving the end space vacant, the first car is weighed, and moved on to the vacant space, the leg of the elevator inserted, and the grain lifted; while the next car is moved on to the first scale, its weight taken, and standing on the scale, its load lifted. So on through the entire train.

In the grain trade as in all other trades, Fairbanks' Scales are recognized as the standard, and their use in this elevator is but one more act

in recognition of their superiority which had already been evinced in their exclusive use by all of the large elevators in this country.

The entire machinery is driven by an engine of 150-horse power, set up with the boilers in a separate building, erected near one end of the main building. The entire building and machinery cost \$100,000, or ten cents per bushel capacity, and have done good service already. This structure was built from the plans, and under the supervision of Messrs. Baumann & Lotz, above mentioned. The millwright work was executed by E. Roberts; the elevator machinery was made by the A. Plamondon Mfg. Co.; the conveyors were furnished by H. W. Caldwell, and the track scales by Fairbanks, Morse & Co., all of Chicago, Ill. The engine was built by the Fishkill Landing Machine Co. of Fishkill Landing, N. Y., and the boilers by the American Steam Boiler Works Chicago, Ill.

The grain trade of New Orleans presents figures highly gratifying to the business men of that city. During the month of March the foreign shipments of grain from there were 106,619 bushels of corn, and 513,864 bushels of wheat, a total of 2,300,583 bushels of grain against 395,421 same month of last year, an increase of nearly 500 per cent. One vessel had on board 3,100 tons of corn, the largest grain cargo that ever left that port. The showing for the entire season is nearly as flattering. Since Sept. 1, New Orleans has exported 3,134,034 bushels of corn against 608,568 same months of previous year, and 5,075,409 bushels of wheat, against 592,927. The *Times-Democrat* thinks "there cannot now be the slightest doubt that this year's export of grain from New Orleans, like its export of cotton, will be the largest ever known, and that the entire commerce of the city will exceed that of the best year during the flush times before the war."



A CHASE STYLE OF ELEVATOR.

age place for the grain that at such times could not be handled by the regular elevators, for receiving corn only and thus make room in their other elevators for other kinds of grain. Messrs. Baumann & Lotz, elevator architects and engineers of Chicago, were consulted as to the best arrangement and construction of such a house as, with the least capital invested, would have the largest storage capacity, with ample facilities for receiving grain from cars, weighing and transferring, or reloading it into East-bound cars. The result is the structure built near the C. B. & Q. Railroad round house at Sixteenth and Oakley streets, Chicago, Ill., of which the following is a brief description:

The entire building covers an area of 140x375 feet, of which 120x375 feet is occupied by storage bins, leaving an open space or shed on one side, 20 feet wide, the whole length of the building, containing the track scales, elevators, line shafting and garners. This huge grain storing box, 120x375 feet, is 30 feet high and rests upon about 2,700 single brick piers, built upon planks placed in the ground. It is divided by five transverse partitions into six bins, each 62x120 feet, and 30 feet high, that will hold 166,000 bushels each, making the storage capacity of the entire building 1,000,000 bushels.

Twelve elevator legs, 31 feet apart, are built against the side of the bin walls, inside of the shed, the belts of which carry 14-inch buckets. These elevators deliver grain to screw conveyors, one for each elevator, that are arranged over the bins the entire width of the building, and have gates for dumping the grain into the bins at various distances. Screw conveyors, one for each elevator, are also arranged in tunnels at the bottom of the bins, having gates for drawing the grain from any point of the bin, and delivering it into the elevator boot. The elevators are also arranged so as to either spout into large garners under the roof of the shed, into car loading and trimming

CORNERS AND SALES OF MERCHANDISE FOR FUTURE DELIVERY.

A paper read before the Senate Investigating Committee of the State of New York, Nov. 27, 1882, by A. E. Orr.

This declaration brings me to the third division of your inquiry, viz.:

"THE EFFECT WHICH SALES FOR FUTURE HAVE UPON COMMERCE AND THE PUBLIC WELFARE."

I have to some extent anticipated this phase of the inquiry in the foregoing remarks respecting some of the advantages derived from the operation of this system. I assure you I have merely touched upon them.

I have stated that there was shipped from the United States in 1881 grain and product of grain valued at \$270,332,519. Probably seventy-five per cent. (and very likely more) of this actual grain was dealt in for future delivery by the exporters before it found its way on board ships, and it is not improbable that from the time it was harvested till it reached the seaboard it formed the basis of transactions aggregating ten or twenty times that amount in value, every one of which were legitimate and mercantile. But this is not all. The vessel service which was requisite to transport this grain abroad was, to a great extent, contracted for before the ships arrived at their ports of American destination, and the bills of exchange which provided for its payment were also largely sold for future delivery to the foreign banker. In fact, every element relative to its shipment, in some way might be said to partake of this "future" character.

There was shipped from the United States in the same year about 7,200,000 barrels and 13,200,000 cases of petroleum and products of petroleum, in from 1,750 to 2,000 ships, and I am informed that from eighty to ninety per cent. of this vast business, both in petroleum and ships, was based upon sales and freight engagements for future delivery.

The tobacco importations of France, Spain and Italy (and doubtless Germany will ultimately follow the same system) are government monopolies, and almost altogether supplied from the United States. The contracts for this tobacco, without exception, are let from one to two years in advance of required delivery, and they aggregate tens of thousands of hogsheads, and millions of dollars of value.

I could enumerate other important items; among them cotton, with its crop of over six millions of bales, and exports amounting to over \$261,000,000 of value in 1881, dealt in to a very large extent in exactly the same manner at home and abroad, but I presume I have said enough to make it evident that selling and buying for future delivery is the *invention* of a great necessity, and it answers the need so well, and has helped to build up our interior towns and large cities and mercantile exchanges so rapidly, that it is an universally recognized part of our great and growing commercial development.

The immediate effect of future sales on the commerce of New York is to increase our receipts of exportable merchandise. I hold, also, that the assurance of an outward cargo will attract ships with inward cargoes, and, therefore, our import trade in a great measure is dependent upon the successful operation of this system. If our State Legislature should interdict its continuance, and the competing seaboard cities are permitted to retain it, a large part of our foreign trade would leave us and go to them, just as surely as foreign steel rails would seek the port of Baltimore if that city received them free of duty, and avoid New York where the present excessive tariff of twenty-eight dollars per ton continued to be collected.

But it may be said that this system is used at times as a cloak for transactions which savor more of gambling than of legitimate speculative operations; that also it sometimes assists the conspirator in the operation of an "aggressive corner," and that its influences, if unchecked, may have a tendency to demoralize the young men of the present age.

To some extent such statements are true. It is impossible to draw the line between legitimate speculation and gambling or "cornering" transactions until the intent of the actors has been developed. Indeed, the intent under certain circumstances cannot be discovered at all, but there still remains this safeguard, that, should the discovery take place (which is the case when the illegitimate purpose is sought to be enforced), the rules of our Commercial Exchanges protect legitimate speculation, from the machinations of the one, and the law renders

void the action of the other when its protective influences are demanded.

To determine that a great commercial good shall be abrogated because its abuse might inculcate gambling and prove injurious to the rising generation, would be as preposterous as to interdict the importation of paper stock and ivory, because a part might be converted into playing cards and dice, wherewith to operate games of chance in an unlawful and baneful manner.

But it has been asked by your committee during this investigation:

"Is it not true that a large proportion of the merchandise sold for future delivery never is delivered?" and "Is not the fact of such non-delivery an evidence of the fictitious character of such transactions?"

It is true that at times a large, and during seasons of great activity, a very large proportion of such transactions are not consummated by an actual delivery of the property sold and bought by the contracting parties. In all such cases, however, an equitable mercantile equivalent is substituted, simply as a convenience to facilitate settlements, which, under the old system of actual delivery under all circumstances, were found to be cumbersome, and attended with very unnecessary cost and risk. It is not true, therefore, that because the process of actual delivery in every instance does not take place, there is evidence of illegitimate or fictitious trading.

New York, because it is the commercial center of the United States, is a great objective point for mercantile transactions, made on behalf of parties throughout the Old and New World. With such a constituency it continually happens that the merchant who buys to-day sells to-morrow, and *vice versa*, and in the aggregate of these purchases and sales, it also often happens that one transaction can be matched against another in all respects except as to price, and when this matching does take place, differences in value only are paid without going through the form of a delivery, and then a return delivery, with all the attendant inconveniences of loss of time and labor. There would be absolutely nothing gained by a strict adherence to the old rule, but, on the contrary, much trouble is avoided, and very rapid and satisfactory settlements are obtained.

Perhaps I may make this more evident by an illustration from the operations of the Bank Clearing House system of this city.

By means of the Clearing House, enormous daily monetary transactions are settled by the actual delivery of comparatively small sums of money, when compared with the grand total.

The Mechanics' Bank, for instance, may possibly have received yesterday from its customers, on deposit, cheques upon the Park Bank for a large sum, aggregating say \$100,000, and the Park Bank, from its customers, cheques on the Mechanic's Bank for another large amount, aggregating, say, \$90,000. Now these banks, under the present system of settlement, do not pay to, and receive from each other, the sum total of the cheques respectively received on deposit. They sent their representatives this morning to the Clearing House, and there the gross indebtedness of the one, contracted yesterday, was matched against the gross indebtedness of the other as far as it could go, and the difference only was paid by the debtor bank in cash. In this hypothetical case a joint indebtedness of \$190,000 was settled by the interchange of only \$10,000 of actual money, and yet every item in the major amount was legitimate, nor did the system of settlement employed suggest that a single fictitious element had entered into the transaction from its inception to its close. It was the growing necessities of the banks that caused them to invent the Clearing House system, just as it was the urgent necessities of commerce to improve upon the old method of actual delivery in every instance, and under all circumstances, that suggested the application of the "clearing" system, when practicable, as a more rapid and convenient means of settling contract obligations. In like manner the railroad, the steamship, the telegraph and telephone have been made the servants of commerce, and each has contributed its quota to aid in her marvelous development. All such means are now deemed essential adjuncts, and cannot be dispensed with.

This brings me to the last division of the inquiry, viz.:

"WHAT LEGISLATIVE ACTION, IF ANY, IS NECESSARY FOR THE PROTECTION OF THE PUBLIC WELFARE?"

In a great commercial country like the United States, where agriculture, manufactures and commerce are the foundations of prosperity and wealth, legislation, after

having enunciated the fundamental principles of law and order, should guarantee to commerce that all matters relating to commercial legislation should largely emanate from commercial sources.

The Legislature of New York has endowed our exchanges with valuable privileges, which have resulted in building up associations of upright, intelligent business men, who, in turn, have become the guardians of the State's commerce, and secured to her principal city the proud position of the commercial metropolis of the United States.

The New York Produce Exchange now numbers three thousand members, all engaged in commercial pursuits, and especially those departments which embrace the products of the soil of the cereal-growing states, of oils, of animal food products, and all their addenda of railroad, lake, canal and ocean transportation.

In the operation of this immense business, which represents from 55 to 60 per cent. of the surplus productions (of these articles) of the United States, necessity has suggested rules (which are commercial laws of equity) for the direction and protection of its members. They are altogether too numerous to mention at this time, but I will cite three which bear directly upon the subject under consideration.

If default under a grain contract for future delivery (for any cause whatever) takes place, the following rule immediately becomes operative:

"RULE 32.—SEC. I. In case any property, contracted for future delivery, be not delivered at maturity of contract, the purchaser shall notify, in writing, the Committee on Grain, of the failure to deliver, and the Committee on Grain shall, at the next call, publicly read such notice, and buy in the grain for account of the party directing the purchase, but no unreasonable price shall be paid, arising from manipulated or fictitious markets, as unusual detention in transportation. Any legitimate loss resulting to the buyer shall be paid by the party in default, and the grain so bought shall be a good delivery on defaulted contracts maturing that day."

You will please specially note the protective elements of this rule. "No unreasonable price shall be paid, arising from fictitious or manipulated markets or unusual detention in transportation," and further, the damage that can be recovered must be "legitimate." From this you may perceive how the "corner" question in all its phases of "accidental," "protective" and "aggressive," can be disposed of, and a strict system of equity administered.

The second rule to which I desire to direct your attention refers to the inception of the future purchase or sale. Its purport is as follows:

"On all sales or purchases of grain for future delivery, either party to the contract shall have the right to call an original margin of ten cents per bushel on wheat, rye, and barley, and five cents per bushel on corn and oats, and a further margin from time to time to the extent of any variation in the market value from the contract price."

This rule contains a protective and restrictive element. The first is a mutual protection to the parties in interest against loss through fluctuations in market value, and the possible vicissitudes of a mercantile career. The second restricts the volume of such trading to more conservative proportions, because of the marginal clause, and is specially beneficial in checking the propensity to assume undue risks on the part of persons of moderate means, by compelling them to restrict their purchases to the capacity of their pockets for marginal purposes. It is also an answer to the objection "that the system of future sales may prove injurious to young men," for the reason that young men, when they want simply to gamble, and find that they must deposit margins as recited above, would prefer a quicker and more direct method of determining their ventures. If, on the other hand, their intention is to speculate, the fact that a margin is required at the outset of the transaction induces a consideration and caution that would not exist if the restrictive influences of the margin did not enter into the account.

So advantageous has this rule proved that a contract for future delivery without an original margin is becoming the exception on the floor of our Exchange. In 1881 the amount deposited through the Exchange Superintendent for marginal purposes alone was nearly \$15,000,000.

My third rule illustration refers to illegitimate transactions, and reads as follows:

"Fictitious sales, or false reports of sales, are positively

forbidden, and will render the parties concerned liable to suspension or expulsion from the Produce Exchange."

This rule is so emphatic and transparent, that comment relative to it is unnecessary. It answers at once every insinuation that the New York Produce Exchange recognizes or countenances illegitimate or fictitious dealings among its members. There is not a by-law or rule upon our statute book that has even the shadow of such objectionable construction attached to it.

From these illustrations, which could be prolonged indefinitely, I assume that you are satisfied the great commercial Exchanges are able to legislate within themselves upon important commercial questions. It is reasonable to suppose that, holding, as they do, their fingers upon the commercial pulse of the nation, they are best able to detect injurious influences, and to suggest remedies.

If this is true, legislation which is to have a direct bearing upon all commercial conditions, should not be forced upon commerce, but should rather await commercial suggestion. Grave errors have resulted from a failure to recognize this obligation, and legislation and legislative inquiry have often been misled, by design or accident, into very hasty action.

With great respect, permit me to state that I believe this is a misfortune that the Legislature of the State of New York has not been quite free from. I trust, gentlemen, that your honorable committee will find from this investigation that the pernicious effects of "Commercial Corners," and "Sales for Future Delivery" have been grossly exaggerated. I regret that I am obliged to say that sometimes "The Press" and persons desirous of attracting the public ear, make startling statements, which will not bear investigation, and which do not meet with the prompt condemnation they deserve.

[TO BE CONTINUED.]

THE MILLERS' REPORT OF THE WHEAT CROP.

Various causes, such as the severity and changeableness of the weather during the past winter, and the continued backwardness of the season, and in many places unusual rains and floods, had led to very dark forebodings as to the present grain crop, especially of wheat. Early in May the estimates had been very largely made, predicting a falling off of 130,000,000 bushels, as compared with last year's crop. The recent report of the Minnesota Millers' Association as to the spring wheat prospects of the Northwest, based on the statements of wheat buyers in that state and Dakota, rendering it probable that the receipts of Minneapolis of this year's crop would reach 25,000,000 bushels, has caused a more favorable opinion to prevail. The report of Secretary S. H. Seamans to the Millers' National Association May 16, on the comparative condition and prospects of the present crop, reduces the estimate of shortage to about 93,000,000 bushels. This report is based on 3,000 replies to circular inquiries sent to millers, producers and dealers in twenty-one states and territories, carefully analyzed, and the averages accurately calculated. The total estimate was 373,500,000 bushels, which renders the probable total yield of the entire country 400,000,000 bushels. The reports from Dakota were of course only approximate. The time and care spent upon these estimates and their source will commend them to the confidence of grain dealers and shippers. The following table presents the recapitulation of Mr. Seamans' report:

STATE.	WHEAT CROP 1882 FROM U. S. AGRI- CULTURAL DEPT.	PRESENT IN- DICATIONS FOR 1883 IN ROUND NUM- BERS.
California.....	34,546,600	45,000,000
Nebraska.....	14,947,300	15,000,000
Texas.....	4,173,700	2,100,000
Kansas.....	33,248,000	23,000,000
Missouri.....	27,538,600	21,400,000
Iowa.....	25,487,300	15,300,000
Dakota (approximate).....	12,000,000	18,000,000
Minnesota.....	37,030,500	37,000,000
Wisconsin.....	20,145,400	18,500,000
Illinois.....	52,302,900	25,000,000
Kentucky.....	17,250,000	12,400,000
Tennessee.....	8,971,200	6,800,000
Georgia.....	3,812,900	3,800,000
Virginia.....	8,311,400	8,300,000
Maryland.....	8,655,600	9,000,000
Delaware.....	1,390,000	1,000,000
New York.....	12,145,200	10,800,000
Pennsylvania.....	20,300,700	22,300,000
Ohio.....	45,453,800	26,000,000
Indiana.....	45,461,800	29,500,000
Michigan.....	33,315,400	23,300,000
States named—Total.....	466,297,900	373,500,000

Indicating a prospective shortage from 1882 crop of nearly 93,000,000 bushels in 21 states, which represent nearly all the wheat producing area.

GRAIN APPLIANCES AT THE RAILWAY EXPOSITION.

The Exposition of Railway Appliances which opened in this city on May 24, has been by far, the most complete exhibition which has ever been held in this city; and we doubt if any exhibition held anywhere in the world has possessed more attractive features. Of course it has lacked the magnitude of international exhibitions, but a walk through its miles of avenues convinces any one that it is, in all conscience, large enough. There are on exhibition quite a number of appliances which are of special interest to grain men, and these we propose to briefly enumerate. Very naturally one of the centers of interest is

THE REYNOLDS-CORLISS ENGINE, furnished by Edw. P. Allis & Co. of Milwaukee, Wis., to drive the machinery of the exhibition. It is rated at 150-horse power, and is a magnificent specimen of workmanship.

THE GANDY BELTING Co. of Baltimore, Md., show samples of the Gandy Belt. This is an English invention.

THORNBURGH & GLESSNER, 47 and 49 West Lake street, Chicago, have on exhibition a line of their "Excelsior" Elevator Buckets and other of their well-known specialties.

H. W. CALDWELL of 46 S. Canal street, shows an extensive line of the well-known Caldwell Conveyor, of all sizes, and some sections in operation.

THE LINK-BELT MACHINERY Co. of Chicago, shows a large line of link belting, and some practical applications of it. Among the latter is their Barrel and Sack Elevator and their Package Conveyor. Few exhibits attracted more attention than that of this company.

THE TAPER SLEEVE PULLEY WORKS of Erie, Pa., displays a line of their pulleys.

C. G. CARLETON, of this city, shows a large line of Belting, Hose, etc.

SEELEY, SON & Co. of Fremont, Neb., have on exhibition a large working model of the Seeley Elevator, in charge of Mr. M. F. Seeley. This is one of the best and most interesting exhibits of the entire show. The model is twelve feet high by about eight feet wide, and shows at a glance the construction and operation of this popular form of grain house. A large number of interested parties have examined the model, and the verdict passed upon it has been favorable.

THE WEBSTER & COMSTOCK MFG. Co., 125 and 127 Ontario St., Chicago, show their "Backbone" Steel Conveyor in operation, and a line of their "Empire" and "Common Sense" Buckets, "Hercules Grain Scoop," Belting, and the "Coker Power Grain Shovel." The last in particular excites a good deal of interest.

THE CHICAGO RAWHIDE MFG. Co., 75 and 77 E. Ohio St., Chicago, show a very fine assortment of their fine goods, including Belting, Lace Leather and Rawhide Rope. Their exhibit is one of the completest and most interesting in the entire building.

FAIRBANKS, MORSE & Co., corner Lake and LaSalle St., Chicago, make a fine display of scales, trucks, water tank, testing machine, etc.

BORDEN, SELLECK & Co. of Chicago, show the Howe Scales, trucks, etc., in large variety.

THE CHICAGO SCALE Co. of this city make a fine exhibit of scales, portable forges, etc.

THE PENFIELD BLOCK Co. of Lockport, N. Y., show a large variety of blocks, trucks, etc. Their goods are especially adapted to warehouse use and their display is highly creditable.

R. T. WHEPLEY, 131 and 133 Lake St., Chicago, general agent of the Hamilton Rubber Co., makes one of the finest displays in the building of belting, packing, hose, etc.

WM. WATSON, Hampshire Block, 177 LaSalle St., Chicago, show in the annex under a neat canopy, a very fine model of the Watson Grain Elevator. The model is eight feet high and is worked by steam the same as a "life-size" elevator would be. The good points of the Watson plan are becoming well known and hardly require any elaboration in this connection. The model in question received grain from miniature cars, elevated it, weighed it and stored it away. To grain handlers this is one of the most interesting exhibits of the Exposition. Mr. Watson is evidently making a very satisfactory impression on the grain handling public. Mr. Watson

shows in connection with his elevator the Bifurcated Spout made by H. Sandmyer & Co. of Peoria, Ill.

THE PEERLESS BELT Co. of Evanston, Ill., display a line of their goods in the gallery.

BAUMANN & LOTZ, rooms 57 and 59 Metropolitan Block, this city, show a fine model of a grain elevator in the gallery, and also a model of Lotz' Power Grain Shovel, which was recently described and illustrated in these columns. Both these models elicited a great deal of favorable comment.

GEO. B. MALLORY, 55 Broadway, N. Y., had a fine exhibit in the gallery, consisting of plans, photographs, and views of different houses which he has planned, and the construction of which he has superintended. Among them is a magnificent plan of Dow's stores at Brooklyn, and plans, views, etc., of the Canton Elevator at Baltimore, the proposed elevators at Tacoma and Portland, Washington Territory, and an elevator planned for the Lancashire & Yorkshire Railway, Eng.

Late Patents.

Issued on May 8, 1883.

COMPOUND FOR PRESERVING BELTS AND PREVENTING THEIR SLIPPING.—Wm. H. Durkee, Cincinnati, Ohio, assignor to himself and George Marshall, same place. (Specimens.) No. 277,017. Filed June 5, 1882.

ELEVATOR.—Jacob B. Brimer and William M. Brimer, Richland Center, Wis. (No model.) No. 277,212. Filed March 30, 1883.

Issued on May 15, 1883.

BELT AND BUCKET ELEVATOR.—Peter O'Kell, Fort Madison, Iowa. (No model.) No. 277,774. Filed March 29, 1883.

DRIVING BELT.—Charles C. Campbell, Cincinnati, Ohio. (No model.) No. 277,678. Filed Jan. 15, 1883.

GRAIN CAR UNLOADER.—John H. Chase, Rochester, N. Y. (No model.) No. 277,460. Filed Oct. 25, 1882.

GRAIN DRYING AND COOLING SHELF.—Henry Cutler, North Wilbraham, Mass., (Model.) No. 277,686. Filed Feb. 6, 1883.

Issued on May 22, 1883.

BELT JOINT.—Edward L. Liedke, Sandusky, Ohio, assignor of one-half to Frank L. Felch, same place. (No model.) No. 277,909. Filed Feb. 9, 1883.

ENDLESS CARRIER AND ELEVATOR.—Elmore W. Ross, Fulton, N. Y. (No model.) No. 278,049. Filed March 1, 1883.

GRAIN SCOURER AND POLISHER.—Jacob J. Souder, Washington, D. C. (No model.) No. 277,950. Filed Sept. 21, 1882.

GRAIN SEPARATOR.—J. Benjamin Birdsell, South Bend, Ind. (No model.) No. 278,082. Filed Aug. 15, 1882.

GRAIN WEIGHING APPARATUS.—William H. Ernest, Chase, Kan. (No model.) No. 278,114. Filed Feb. 12, 1883.

AUTOMATIC GRAIN WEIGHING MACHINE.—John Stevens, Neenah, Wis. (No model.) No. 278,193. Filed Sept. 19, 1882.

AUTOMATIC GRAIN WEIGHING MACHINE.—John Stevens, Neenah, Wis. (Model.) No. 278,194. Filed Nov. 5, 1881.

Issued on May 29, 1883.

CATCH FOR GRAIN CAR DOORS.—Dennis F. Van Liew, Aurora, Ill. (No model.) No. 278,377. Filed Dec. 21, 1882.

SHAFT HANGER.—Helen C. Crowell, Erie, Pa. (No model.) No. 278,404. Filed Sept. 18, 1882.

Issued on June 5, 1883.

DOOR AND DOOR ATTACHMENT FOR GRAIN CARS.—Charles C. Duffy, Newport News, Va. (No model.) No. 278,895. Filed Oct. 2, 1882.

GRAIN SHOVEL MECHANISM.—John S. Metcalf, Indianapolis, Ind. (No model.) No. 278,993. Filed April 25, 1883.

PNEUMATIC AND AUTOMATIC GRAIN TRANSFER APPARATUS.—Lyman Smith, Kansas City, Mo. (No model.) No. 279,034. Filed April 26, 1883.

The Howe Scales have all the latest improvements. It is true economy to buy the best. Borden, Selleck & Co., agents, Chicago.

Legal Notes.

Wharfage.

When a city ordinance fixes rates of wharfage to be paid by certain packet companies for landing at the wharf of said city, but does not, in terms, apply to the successors of such companies, a new company, even if it is the successor of the companies named, will not be liable under the ordinance for the rates fixed.—*Keokuk N. L. P. Co. vs. City of Quincy*, 81 Ill. 422.

Cities and Wharfage.

Where a city ordinance fixes the rates of wharfage to be paid by the boats of certain packet companies named in the ordinance, for each landing, and also for all tow boats and transient boats, a packet company not named in the ordinance cannot be compelled to pay any rates or charges for landing at the wharf of said city.—*Keokuk N. L. P. Co. vs. City of Quincy*, 81 Ill. 422.

Liability for Grain Shipped Contrary to Directions.

When grain was delivered to wharfingers, to be shipped to a certain party in New Orleans, where certain rates could be had, and before shipment they were notified not to ship to such party, but to another, which they neglected to do, but shipped according to first direction, and the price of the grain was lost in consequence of the insolvency of the consignee, it was held that the wharfingers were liable to the shipper for its value.—*Howell vs. Morlan*, 78 Ill. 162.

Liability of Warehousemen.

Warehousemen and wharfingers may be liable where they make dangerous approaches. If private warehousemen, merchants, blacksmiths, millers or other persons engaged in business, construct approaches to their places of business, knowing the same to be defective, or have trap-doors known to be unsafe, where their customers necessarily pass, and such defects are concealed or not apparent, it seems they will be liable for any injury resulting therefrom.—*Buckingham vs. Fisher*, 70 Ill. 121.

Liability of Carrier for Conversion.

Plaintiff, who had sold a quantity of corn to be paid for before delivery, and upon which a part of the purchase price had been paid, delivered the corn to a railway company for shipment on account of plaintiff, and subject to his order. The railway company without plaintiff's consent delivered the corn to the purchaser, Held, a conversion, and that the railway company was liable to plaintiff for the purchase price of the corn, but might prove in mitigation of damages that the purchaser had paid plaintiff the full purchase price.—*Fellett's vs. St. Paul, etc., R. R. Co., Minnesota Supreme Court*.

Option Contracts.

A man, though not a dealer in wheat, may lawfully employ a broker on an exchange to sell wheat for him for delivery at a future time, and to execute the contract for him by purchasing upon the market the wheat for delivery when the time for delivery arrives, or by settling with the purchaser upon payment of the difference between the contract price and the market price, if the purchaser shall waive the execution of the contract by the delivery of the wheat according to its terms. To render such a contract unlawful it must appear that there was a contemporaneous agreement that it should not be executed by delivery, but only by settlement of differences. 2. The plaintiffs having made for defendant lawful contracts, as his agents, which contracts, they as his agents, executed and discharged in a lawful manner, in consequence of all which defendant incurred an indebtedness to plaintiff, he can not avoid his liability to plaintiff by setting up that his intention in making the contracts was to bet upon the future price of grain, and not to buy, and that defendant knew this. 3. The contract being valid according to its terms, the burden was on defendant to show by extrinsic evidence its invalidity, if this could be done. 4. The plaintiff, under the rules of the exchange in which the dealings were had, were not bound to settle upon the basis of a fictitious and manipulated market, and can charge against their principal only the losses which they sustained by settling in the average market for purposes of consumption, and it is part of their case to show what the market price of wheat, at the time of delivery, was

in a fair market. Reversed and remanded.—*Kent vs. Mittenberger*, St. Louis Court of Appeals.

Insurance.

S, who was a judgment creditor of L. Brothers, issued a warehouse of his debtors, worth \$1,300, in his own name, for \$900, to cover his debt. The nature of his interest was known to the company when the policy was issued, but when there was a loss it refused to pay the insurance, on the ground that the policy was a wager policy, there being no insurable interest in the creditor. In the action for the insurance (*Spare vs. Home Mutual Insurance Co.*) in the United States Circuit Court, District of Oregon, Judge Deady, in deciding the case, said: "1. The person insured must have an interest in the property insured or he can suffer no loss by its destruction; but a judgment creditor, when, by statute, as in this state, judgment is a lien on the real property of his debtor, has an insurable interest in the buildings thereon to the extent of his judgment, the land with the buildings being a security for his debt. 2. But as he cannot enforce his lien if he can find sufficient personal property to satisfy the judgment, he must show by his complaint for the insurance money that there is not sufficient personal property to satisfy his debt, and that he must resort to the real estate for its payment, or he does not state enough to justify a recovery against the insurance company.

Illegal Pledge and Conversion.

1. Where a factor has illegally pledged to a bank the goods of his principal, in excess of advances and charges, the measure of damages in an action by the owner of the goods against the bank is not the value of the goods pledged and converted, irrespective of any amounts which the owner had received from the factor on account of the goods, but the actual damage sustained by the pledge and conversion of the goods. 2. In estimating the value of the goods illegally pledged and converted, it was proper in an action against the bank to consider not what the goods brought at a cash sale, but what it was shown that they would have brought if sold in parcels in the usual course of trade, and from this sum it was proper to deduct the usual commissions allowed the factor by the bank for the sale. 3. Where a case is tried without a jury the finding will not be reversed as against the evidence if it can be sustained on any theory of the law applicable to the facts and not negated by the instructions. 4. Where the goods of plaintiff had been illegally pledged by his factor, and converted by the pledgee, the plaintiff was entitled to recover from the pledgee the fair value of the goods, if sold by the factor in the usual way, less commissions and whatever amount plaintiff had received from the factor on account of the goods illegally pledged.—*Alabama & Georgia Manufacturing Company vs. Third National Bank*, St. Louis Court of Appeals.

CLERKS OF COMMISSION FIRMS.

It is a well-known fact that "clerks on 'Change'" often resign their positions, and become partners in other houses. Many of these clerks, it is said, receive very small or no salaries, obtaining as compensation for services the privilege of doing their own business with the facilities of the firm, using the books of the concern. Such clerks, when shrewd in their calculations, have been known in a few years to make from \$50,000 to \$100,000. Their mode of operation is when a large customer makes a heavy purchase or sale that will affect the market, at the same time with the use of the customer's name to put on their own "jags," which obtains the benefit of the highest market price. Clerks in offices sometimes pool their friends. In New York this is styled "banking" on a customer, and has led to at times the expulsion of the culprits. The Chicago Board is said to be more lenient, and this business is winked at. The power to make money by a popular commission house which deals for a few rich and successful speculators, is almost unlimited. Some of these favored firms are reported as making \$1,000 per day on grain and provision commissions the year round. The firm of Handy, Richardson & Co. were found by the receiver to have earned over \$40,000 in the month of January alone, and \$60,000 from that time to their failure. The failure of a firm with such a business, shows how contagious is the spirit of speculation, and how full of hazard, even to the most able and experienced dealers. One of these dealers, who makes nearly \$1,000 per day on commissions, is reputed as saying that he had

never known an amateur speculator stop a winner. "The successful men at New York who have made speculation a business, are very few. They are men of vast means, and devote themselves to stock and produce gambling."

General Items.

Kansas farmers had a short time ago over 5,000,000 bushels of old wheat, and over 37,000,000 bushels of old corn.

In ten years the wheat acreage of the United States has nearly doubled, 19,000,000 acres being the number reported at the beginning, and 36,000,000 at the end of the decade.

By actual trial the past season 100 bushels of shelled corn shrank to ninety between December and the first of May. It was put in a tight bin, and the shrinkage was from evaporation—not from rats or mice.

From the time of opening the Erie Canal last year until the end of the third week of May, 214 boats cleared from Buffalo. This year the tolls are abolished, and although navigation opened nearly a month later than last year, the number of boats cleared, up to the same date, is 513. The increase is certainly remarkable.

Out of the whole area of California 98,500,000 acres—there is still nearly 44,000,000 acres, available for entry. Out of this 16,295,000 is suitable for lumbering, mining, etc.; 6,000,000 water, mountain, etc., and 21,500,000 acres available for agriculture. These lands are more equably distributed over the state than is generally supposed.

Canada's grain export for 1882 fell off nearly 2,000,000 bushels compared with the previous year, and upward of 4,000,000 bushels compared with 1880. The duty collected on grain and flour imported last year shows a decrease of \$7,000, while the actual quantity of grain entered for consumption in the Dominion increased by 40,000 bushels.

That the Canadian Northwest is a land of Goshen for hard spring wheat is well known, but probably it is not so well known that it is a graat country for oats, too. The *Winnipeg Commercial* says that there are now 250,000 bushels of oats in store there and at other points in Manitoba, while some estimates go to 100,000 bushels more. In view of this it advocates the erection of oatmeal mills throughout the Northwest.

Some interesting calculations are made in the *New York Tribune* about the possible increase of wheat cultivation in this country. It estimates that owing to the vast amount of land rendered accessible in this country in the last three years by the construction of over 20,000 miles of new railroads, an increase in the demand for wheat might easily be followed by a gain of anywhere from 100,000,000 to 300,000,000 bushels. The farmer who was twenty miles from a station could not afford to put his land into wheat, but can do so with a handsome profit when a station comes within a mile or two of him. The new roads of the last three years have brought over 50,000,000 acres of new land within four miles of cheap communication with the markets, and this is the main element in the profitability of wheat-culture in the wheat country.

Our California wheat-growers are slowly getting it through their heads that somehow or other India will be their chief competitor in British markets. Any authentic information they can receive about the progress of railroad construction in British India ought to be interesting. The *Indian Official Gazette* gives some very interesting particulars of railway extension in India. At the end of the year 1882-83 there were open for traffic 10,251 miles of rails, showing an increase of 290 miles during the year; and there were in course of construction 2,332 miles, being an increase of 1,030 miles during the year. The net returns from the traffic, excluding the lines in the native states, were Rs. 7,40,17,500, or an average return of 5.07 per cent. on capital and cost. The length of the railways open for traffic has been doubled in the course of the last ten years. The progress has hitherto been slow, and is yet slow, but the great increase in the length of line in course of construction bodes no good to the California wheat export trade.—*San Francisco Merchant*.

Over 200,000 Howe Scales have been sold, and the demand increasing continually. Borden, Selleck & Co., agents, Chicago, Ill.

Canals and Marine.

The Canadian authorities claim to have information of a plot on the part of "Invincibles" to blow up the Welland Canal.

A recent cargo of the schooner David Dows amounted to 73,233 bushels of wheat, and was the largest cargo ever brought down the Sault Ste. Marie River.

The Massachusetts Senate has passed the bill incorporating the Cape Cod Ship Canal Co. with a capital of \$5,000,000. The company is required to deposit \$200,000 with the state as a guarantee of good faith.

A meeting of the Florida Ship Canal and Transit Company was held Friday at New York, at which General Charles P. Stone, the engineer, reported that it was feasible to cut a ship channel across the peninsula. The survey will be made at once, and it is expected that work will be begun on the enterprise next September.

Steam is revolutionizing the trade of the St. Lawrence River. In 1856 the river was navigated wholly by sailing craft, excepting three small steamers in the Liverpool trade. Last year the number of steamers arrived at Montreal far exceeded the number of sailing vessels, while the steam tonnage, in its relation to other classes of shipping, was as six to one.

According to statistics of the grain trade of the port of New York not an atom of last year's exports was carried in an American vessel. There were Austrian, Danish, Dutch, French, German, Spanish, Swedish, Norwegian and Portuguese carriers, but no American. The Belgian vessels alone took away over 5,000,000; the Italian, 3,000,000; the Dutch, 2,000,000; the British, between 26,000,000 and 27,000,000.

Friese's immense new tow barge Golden Age, which was launched last September, is probably the largest barge on the lakes. She has double decks, eight hatches, four spars, and is painted black. Her dimensions are as follows: Length of keel, 287 feet; length of beam, 39½ feet; depth, 21½ feet; length over all, 300 feet; capacity estimated at 130,000 bushels of corn, drawing fourteen feet of water.

A project is on foot to construct a second Suez Canal, which receives the support of powerful commercial corporations in England. Financially, the present canal is a great success, but it is inadequate to meet the requirements of trade. The tonnage through it increased from 2,000,000 in 1874 to 4,000,000 in 1880, and is still increasing. Five-sixths of England's trade with India, Japan, Ceylon, the Straits, and the Philippines, is now carried on through the canal. The trade of those countries aggregates \$545,000,000, and \$460,000,000 of it passes through the canal; and to this must be added \$60,000,000 of the \$275,000,000 representing British trade with Australia. The grand total of British trade with all countries lying beyond the isthmus being \$820,000,000, the aggregate of the canal traffic is \$520,000,000, or nearly two-thirds of the whole.

Referring to a recent and most commendable act of the Oregon Railroad & Navigation Co., the *Age of Steel* says: "The legal definition of a corporation is an artificial body, to which some people insist upon adding 'without a soul to save.' But it is not our purpose to discuss the question of things souled and soulless—that is too metaphysical; we wish simply to remark that if corporations haven't souls, they sometimes act as humanely as people who possess the whitest kind of souls. And in saying this, we are reminded of the recent and praiseworthy conduct of the Oregon Railroad & Navigation Co. in voluntarily reducing freight rates \$1 per ton. This act of the Oregon corporation appears to be the more striking and soul-like the more we regard it. The country through which the road runs is agricultural, thinly populated, and possessed of no other transportation facilities than those afforded by the road in question; and there is no anti-monopoly legislature in session, or a pending popular election to be influenced. The reduction will save the wheat producers on the line of the road some \$200,000, which otherwise would have gone the way of other money paid out in settlement of freight charges. The road is now popularly called the benevolent monopoly."

Now that maritime operations have commenced and the ocean tonnage in port is increasing every day, grain exporters and carrying companies begin to realize the serious disadvantage at which they are placed in competing with the United States for the grain carrying trade of the West, through having to pay canal tolls of ½c. per bushel and wharfage of ¼c. per bushel, whilst their competitors doing business via New York, are exempted from both charges. Last year, when the American canal tolls were in force, amounting to ¾c. per bushel, equal to our canal and wharfage charges put together, the exports of grain from this port ran down to 8,000,000 from 12,000,000 bushels the year previous, and now that the United States authorities have abolished the tolls altogether, it will readily be conceived that Montreal shippers labor under greater disadvantages than ever in competing for the important grain trade of the West, notwithstanding the natural advantages which the St. Lawrence route possesses over the Erie route in the transportation of grain to the seaboard. This subject, which is one of paramount importance to the trade of this port, appears to be still uppermost in the minds of our shippers, among whom it occasions considerable discussion. It has been advanced by some that if the Government could be persuaded to abolish the ½c. canal tolls, and, instead of charging the ¼c. wharfage dues

here, levy that amount upon all grain passing into the Welland Canal, it would greatly facilitate traffic by the Canadian route.—*Montreal Gazette*.

A New York paper of recent date says: For the first time in fifteen years grain arriving in this city is being stored here, instead of being immediately shipped to Great Britain and the Continent, by vessels previously chartered. Mr. Harrison S. Vining, Chief of the Bureau of Inspection, of the National Board of Marine Underwriters, stated to a reporter recently that there was not at the present time a single sailing vessel in this port loading with grain for either Great Britain or the Continent, and very few chartered steamers. In fact, the grain-carrying trade is so extraordinarily dull that shippers are doing almost absolutely nothing.

Since the abolition of tolls on the Erie Canal has been so successful in promoting its value as a water-route between the lakes and the sea-board, the Canadian press has commenced advocating the same action in regard to their canals. The advisability of doing away with the toll system on the Welland Canal is of itself an important subject, and one that will interest every one connected with lake commerce. The *Toronto Evening News* has the following editorial in regard to the matter: "The Dominion Government has material for consideration in the fact that traffic on the Erie Canal has received a wonderful impetus by the removal of tolls. From the time of opening the Erie Canal last year until the end of the third week in May, 214 boats cleared from Buffalo. This year the tolls are abolished, and although navigation opened nearly a month later than last year, the number of boats cleared up to the same date is 513. It will certainly be found necessary, if the Canadian Government wants to keep up with the procession, to make our canals free. It might be a costly experiment, but it will be far more profitable than a policy which must result in turning the lake trade toward New York. The competition in forwarding grain between the railways and the waterways is now so close that a trifle decides the course of shipping. Let it not be decided against Canada for the sake of the tolls on the Welland Canal."

RYE PRODUCTION OF THE UNITED STATES SINCE 1871.

Year.	Bushels.
1871	15,365,500
1872	14,888,600
1873	15,142,000
1874	14,990,000
1875	17,722,100
1876	20,374,809
1877	21,170,100
1878	25,842,790
1879	23,639,460
1880	24,540,560

PRODUCE SHIPMENTS AT MONTREAL.

It may not be out of place at the commencement of the present season of navigation to give the shipments of produce from Montreal via the St. Lawrence, from the opening to the closing of navigation of last year, with comparisons, which are as follows:

	1882.	1881.
Wheat, bushels.....	5,798,496	5,539,886
Corn, bushels.....	596,104	3,226,916
Peas, bushels.....	1,672,059	3,805,381
Oats, bushels.....	149,573	1,166,448
Barley, bushels.....	1,181	7,326
Rye, bushels.....	78,412	459,659
Flour, barrels.....	387,851	278,821
Oatmeal, barrels.....	24,101	24,907
Cornmeal, barrels.....	4,435	3,622
Ashes, barrels.....	6,266	7,322
Butter, packages.....	73,252	148,587
Cheese, boxes.....	747,632	545,421
Pork, barrels.....	7,690	5,670
Lard, packages.....	26,389	7,109
Meats, packages.....	15,797	21,823

We also give total shipments of produce at Montreal by water and rail from Jan. 1 to Dec. 31 last year, which were as follows, with comparisons:

	1882.	1881.
Wheat, bushels.....	6,913,290	9,554,622
Corn, bushels.....	672,850	3,359,084
Peas, bushels.....	2,202,674	3,133,203
Oats, bushels.....	545,962	1,211,221
Barley, bushels.....	128,451	133,824
Rye, bushels.....	99,351	459,666
Flour, barrels.....	775,862	632,821
Oatmeal, barrels.....	38,475	44,821
Cornmeal, barrels.....	10,457	20,685
Ashes, barrels.....	8,747	9,584
Butter, packages.....	147,948	208,064
Cheese, boxes.....	871,826	640,037

It will therefore be seen that in the shipments by water there was an increase of 258,610 bushels wheat; 109,030 barrels flour; 813 barrels cornmeal; 2,020 barrels pork; 19,280 barrels lard, and 172,211 boxes cheese, and a decrease of 2,630,812 bushels corn; 1,133,322 bushels peas; 1,016,375 bushels oats; 6,145 bushels barley; 381,247 bushels rye; 806 barrels oatmeal; 1,056 barrels ashes; 75,335 packages butter, and 6,026 packages meat. The total shipments last year from Jan. 1 to Dec. 31 by rail and water, show an increase of 358,668 bushels wheat; 143,041 barrels flour; 231,789 boxes cheese, and a decrease of 2,686,234 bushels corn; 930,529 bushels peas; 665,259 bushels oats; 5,373 bushels barley; 360,315 bushels rye; 6,346 barrels oatmeal; 10,228 barrels cornmeal; 837 barrels ashes, and 60,136 packages butter.

Railway Intelligence.

An extension of the Chicago, Milwaukee & St. Paul Railroad to Bismarck is contemplated.

Work on the new Chicago, Rock Island & Kansas City is to begin at once and to be completed within twelve months. It will be from seventy to eighty miles shorter than existing lines.

The Milwaukee Chamber of Commerce wants the free transfer of grain for rail shipment to Eastern and Southern points, and such rates of freights to all such points as will put Milwaukee on a par with Chicago.

N. K. Fairbank of this city has been chosen a member of the directory of the Chicago & Northwestern R. R., in place of David Dows who declined a re-election. It is said that Mr. Fairbank will look after the interests of Mr. Dows in the road.

Railway construction in the United States for the year 1883 is estimated as not likely to exceed 8,000 miles, against 11,000 miles last year—a decrease of nearly 30 per cent. Some authorities put the present year's mileage as low as 6,000 miles.

Mr. E. O. Seymour, who has been in the railroad transportation business in this city for the past twenty-six years, and until recently agent here for the Hoosac Tunnel Line, has given up railroading to engage in the commission business, having associated with the firm of Irwin, Orr & Co. Mr. S. has a host of friends, who wish him every success.

State ownership makes a bad showing in Europe. An English paper is authority for the statement that, while the Swiss railways, privately managed, are worked at 55 per cent. of gross receipts, "the state lines of Germany swallow up 59, those of Austria 73, of Belgium 63, of Norway 74, and of Denmark 71 per cent. of their revenue in working expenses."

It has been demonstrated that freight can be carried by railways at 5 per cent. of what it costs to haul it by horse power on an ordinary wagon road, thus effecting a saving to the consumer of 95 per cent. Cheap transportation is the supreme benefit derived from railway construction, and its results fully justify all the liberality exercised by the government in dealing with them.

The following figures, pertaining to the railway system of the United States, may interest our readers: Miles of main line in operation, 115,000; miles of track, including sidings, etc., 130,000; tons of rails now in use, 13,000,000; locomotives in service, 22,000; passenger cars in service, 16,000; baggage, mail and express cars, 5,000; freight and other cars, 700,000; number of railway employes, 575,000.

The total railway mileage reported to the Iowa executive council for taxation in 1883 is 6,791, an increase from January 1, 1880, of 1980 miles. The taxable value is \$28,332,739, an increase from 1880 of \$4,263,614. The lowest valuation per mile is \$8,800, and the highest \$12,200, that being the rate on both the Rock Island and Burlington main lines. The sleeping-car lines are listed at \$630,872. The aggregate net earnings of all roads for 1882 were \$11,191,559.

In a recent railroad suit it became necessary to estimate the cost of stopping a train. Several experts testified that it was fully \$2. Statements of eminent railroad authorities to the same effect were also submitted. The opposing counsel figured out the number of stops made by the trains on one division of the road during the year, which, when multiplied by two, amounted to more than double the gross earnings of the entire road. The *Railway Gazette* places the cost at about thirty cents, which includes the time of the employes and the fuel burned while standing.

The Iowa, Nebraska & Kansas Railroad Co. has been organized at Nebraska City, Neb. The capital stock is limited to \$1,000,000. The road is to begin at the head of Nebraska City Island, on the Missouri River, on the Nebraska side, and run in a southwesterly direction through Nebraska City, thence through Otoe, Johnson, Saline and Gage counties to the Kansas line, and thence southwest. The company was organized in the interest of the Wisconsin, Iowa & Nebraska Railway, commonly called the "Diagonal," now building. A preliminary survey will be made at once, and right of way secured.

HIS USUAL LUCK.—"My dear man," said the doctor, as he sat by the bedside of a Wall Street speculator, "your case is a very serious one."

"In other words, I have sold short," replied the patient.

"That's it, exactly. It is my duty to inform you, that you may not live three days."

"In other words, if the markets falls another peg my broker will sell me out."

"That's it."

"Well, it's best to look the situation square in the face, doctor. I'm going to put up more margin, and hope for a re-action. Bet you \$100 that my undertaker is scooped, if he has me booked for May delivery!"

It is needless to add that he will soon be on the street again.—*Wall Street News*.

A meeting of the creditors of Handy, Richardson & Co. of this city, will be held July 1. Mr. Handy has left the city, and Mr. Richardson, who faced the music and lost everything, is now working on a salary for a Board of Trade firm.

Notes from the Exchanges.

Los Angeles, Cal., now has a Board of Trade with 125 members.

Holden & Timberlake, grain dealers at Cincinnati, have dissolved partnership.

Memberships in the New York Produce Exchange are quoted at from \$3,500 to \$3,700.

A. N. Merriam, keeper of a bucket shop at Rockford Ill., fled, leaving debts, of course.

McCollum & Brosseau, grain commission merchants of this city, have dissolved partnership.

Dealing in options is said to have been the cause of the fall of the city treasurer of Lansing, Mich.

On June 4, J. H. Herrick was elected President of the New York Produce Exchange, receiving 988 votes out of a total of 1547.

Frederick E. Roberts has been admitted a member of the grain and flour commission firm of C. R. Hickox & Co., New York City.

Seventy-one names have already been secured to Atlanta's new Board of Trade list, and 100 are expected. The membership fee is \$50.

The St. Louis Merchants' Exchange Board of Directors have fixed a uniform rate of sixty pounds tare per car on corn and ninety pounds tare on wheat.

The grain commission firms of Buckley & Co and Thos. J. Pursley at Peoria, Ill., have consolidated under the firm name of Buckley, Pursley & Co.

Some of the members of the San Francisco Produce Exchange have been objecting to the assessment of \$300 on each member for the projected new building.

The Western Union Telegraph Co. has reduced its rate on business done by the Boards of Trade and similar organizations between this city and St. Louis, 40 per cent.

The plans for the twelve story office building which Armour, Kent & Bensley are about to erect to the south of the Board of Trade building in this city, have been completed, and work will soon be commenced.

The Committee on Grain of the New York Produce Exchange have decided to continue to permit consignees to hold grain in bond free of charge for two full days (exclusive of Sundays and legal holidays), not counting the day on which sample is tendered; said days to end at six p. m. If delayed over two days from the date of the consignees' delivery order by deliveries of grain from the same boat, the current rate of demurrage per day shall be allowed the consignees for each day, or part thereof, thus delayed.

In Milwaukee Peter McGeoch paid the claims of Mall & Bigelow and Ed Sanderson, \$1,000 each, on the "put" contracts about which there has been so much dispute. The case came up before the Committee on Arbitration and McGeoch was beaten. Then it was brought before the Board of Appeals of the Chamber of Commerce, and was there also decided against McGeoch. There was talk of the case going to the courts, but McGeoch thought it proper to abide by the decision of the Chamber of Commerce committee.

The pilasters have been raised which are to stand on each side of the main entrance of the new Board of Trade building in this city, forming part of the basis of the grand tower. Two emblematic figures of a "bull and a bear" will rest upon these pilasters. The latter will be sixteen and a half feet high, five feet in width and three feet in thickness, and will be polished on three sides. Their weight will be about forty tons. These are the largest solid pillars ever placed in a building in Chicago, and the granite came from Fox Island, Me.

The largest stone ever brought to Chicago is the corner stone for the new Board of Trade Building. The stone weighs twenty tons, is sixteen feet six inches long, five feet wide and three feet thick. It is one of two polished granite pilasters that will stand on either side of the main entrance of the building on the Jackson street front. They will rest on cut granite bases and sur-bases on a line with the floor of the second story. Above and resting upon them will be the usual architraves, friezes, and cornices, upon which will repose the carved images of a bull and a bear.

The Board of Trade and the Corn Exchange of this city are engaged in negotiations looking to amalgamation with each other, and it is satisfactory to learn that these negotiations bid fair to be successful. The objects of the two organizations are identical, and the methods pursued are similar. To maintain two separate boards is really therefore a waste of valuable force, to say nothing of the danger of having at some crisis, one saying one thing, and the other something very different. This has happened in the past, and might happen again. Both bodies have done much to promote the business interests of this city, and can yet do more.

President Holman, in his address to the members of the New York Produce Exchange, at their annual meeting, said that the new building would be completed before Jan. 1, 1884. The rents already secured indicate that the receipts from the building, after paying interest, taxes and insurance, would be about \$100,000 a year; in that event the Exchange could free itself from its building debt within ten years. In proof that the business of the Exchange and of New York was developing, he said that from Jan. 1 to May 17, the transactions in cereals in the Exchange aggregated 929,085,650 bushels, as against

439,193,300 during the corresponding period last year. The exports of wheat, corn and rye, were 18,142,626 bushels, while during the same period of 1882 they were 13,379,958 bushels. Mr. Holman said that, in order to preserve the commercial supremacy of New York the Erie Canal must be enlarged to twice its present capacity. More elevator facilities were needed, also more storage facilities for flour and provisions. The expenses of the Exchange for the year were \$83,270, and the cash on hand \$35,229.

The Annual Meeting of the Chicago Open Board of Trade was held May 14. The report of the secretary was read and showed a membership of 500. It is now proposed to substantially increase the price of membership, as there are now enough members belonging, and any more would be undesirable. The report of the treasurer shows a fine cash balance in the treasury and there is some talk of building a tasty Open Board Exchange Hall near the new Board of Trade building on LaSalle and Van Buren streets. The matter will be taken into consideration. There is nearly \$50,000 in the treasury, and with bonds issued for the remainder a building to cost \$150,000 could easily be built. Their lease on the present quarters will be retained another year. There were other reports read and a great deal of miscellaneous business transacted.

The new building of the New York Produce Exchange is progressing toward completion. The northwest corner is already, since the 1st inst. in the occupancy of the Pennsylvania Railroad Company, and the northeast corner will by the 1st of June be occupied by the Maritime Association of New York. The basement floor will be occupied by the Produce Exchange Safe Deposit Company. The second floor will be devoted entirely to the Produce Exchange proper. It consists of a hall 200 feet long and nearly 150 feet broad, with ceiling 50 feet high, and lighted by skylight 40 feet wide and 110 feet long. Above these are floors for offices. The entire area of the building is about 50,000 square feet, and it will contain nine acres of flooring, which, at moderate rents, it is supposed, after reserving as much space as the Exchange will need, that the remainder of the building can be rented for \$175,000 per year. This is 5 per cent. on the cost of the building, which is about \$3,000,000. The committee originally estimated that \$150,000 could be derived from rentals, but now think \$25,000 more can be obtained. It is supposed the building will be done about the 1st of January.

The sale of seats on the Chicago Grain and Provision Call Board on May 25, was very largely attended and realized an aggregate of \$100,000, an increase over last year of \$27,000, being the most successful sale ever held. The competition for seats near the caller among the large dealers was very keen. At the first sale of seats some years ago, No. 1 brought \$35, and this was considered high. At the recent sale, Mr. J. J. Bryant paid \$850 for No. 25, the highest price ever paid. About forty-five seats brought \$700, and 108 over \$500 each. The fiftieth chair brought \$675. Over 350 of the whole number, 405 seats, were sold, the lowest at \$10. The following firms paid \$750 and over in the order named after the first chair: J. T. Lester & Co.; W. T. Baker & Co.; Culver & Co.; Jones & Raymond; Seymour, Hunt & Co.; Irvin, Orr & Co.; W. T. Kirkwood & Co.; McGeoch, Everingham & Co. (\$775); Dwight & Gillette; C. Counselman; Schwartz & Dupee; Fowler Bros.; C. W. Brega; G. T. Baldwin, (\$800); Wheeler, Gregory & Co.; Crosby & Co. (\$800); Smith & McCormick; M. S. Nichols & Co.; G. C. Eldredge; Chicago Packing & Provision Co.; Milne, Bodman & Co.; Sibley, French & Co.; Taft & Wilson; B. F. Stouffer; W. E. McHenry (\$800); L. Everingham & Co.; J. C. Furgerson; Field, Lindley & Co.; G. Stewart & Co.; J. B. Hobbs (two, at \$780 each); C. T. Yerkes, Jr. & Co.; H. Warren & Co. It is anticipated that the proceeds will be invested in new Board of Trade bonds.

A meeting of the Executive Council of the National Board of Trade was held at the Merchants' Exchange, Cincinnati, Ohio, at 11 o'clock a. m. on May 30, where they were welcomed by members of the Chamber and the local committee, Messrs. Jno. A. Gano, A. T. Goshorn, Wm. Henry Davis, Thomas G. Smith and Henry G. Urner. The following members of the council from other cities were present: The Hon. Frederick Fraley, Philadelphia, Pa. Chairman; the Hon. Hamilton A. Hill, Boston, Mass., Secretary; Ed. P. Bacon, Milwaukee, Wis.; John D. Holliday, Baltimore, Md.; Col. John P. Wetherell and Henry Davis, Philadelphia, Pa.; J. M. Kimball, Providence, R. I.; Ambrose Snow, New York; W. F. Crosby, Chicago, Ill.; Benjamin Gann, Jr., Philadelphia, Pa.; W. S. Young, Baltimore, Md.; W. H. Lincoln, Boston, Mass., and G. M. How, Chicago, Ill. S. F. Covington, one of the Vice-Presidents of the National Board, delivered a brief address of welcome and introduced Capt. O. D. Parker, President of the Cincinnati Chamber of Commerce, who also cordially welcomed them, apologizing for the small attendance of their members, growing out of the impression that the meeting was not to be public. Mr. Fraley responded to Capt. Parker's address and stated that the chief object of the present meeting of the Council was to put forward the suggestion made at the Thirtieth Annual Meeting of the National Board, to endeavor to increase the membership of that body by promulgating its advantages to commercial bodies throughout the United States. Hon. H. A. Hill, secretary, read the letters, telegrams, etc., from various Boards. The announcement of the appointment of Edward P. Bacon by the Merchants Exchange of Milwaukee Wis., to succeed the late ex-Gov. Wm. E. Smith as delegate to Council, and Vice-President of the National Board, led to the passage of a resolution of sympathy and

condolence to be drafted and sent to the widow of ex-Gov. Smith. Mr. Hill stated that as no meeting had been held since January he had no regular report, but he read a lengthy and interesting address, reviewing the action of the first meeting of the National Board, which was warmly applauded, and ordered to be printed, copies to be furnished to all the commercial boards of the United States.

On the 24th of November last Hugh Maher, a well-known speculator of this city, filed a petition in the Circuit Court against the Board of Trade, asking for a mandamus to compel it to issue him a certain certificate of membership. He represented that he became a member of the board in 1859, when it was a small organization and continued to be a member until August, 1872, when the directors refused to longer let him enter the halls of the board, or transact business on its floor, on the ground that he had refused to pay certain debts contracted on the board. A certificate of membership is now worth about \$3,500, and he claims that he has been wrongfully deprived of his, and asked that it be restored to him. On May 25 a demurrer was argued to the petition before Judge Rogers on the ground that it was defective and insufficient to warrant any relief being granted. The Judge said he was inclined to think the petition fatally defective on two grounds: First, because the petitioner had slept so long on his rights; second, it failed to show he had not been expelled according to the rule of the board. The petition was very shrewdly drawn with a view to avoid that trouble. But the Supreme Court had held the board was a private corporation and endowed with the power of disciplining and expelling its members for violation of its rules, and had also decided that a membership in the board was not property, but only a privilege, which could not be sold under execution. Inasmuch, however, as the counsel for the petitioner desired to furnish briefs, he would make no order, but give time to file written lists of authorities.

On May 10, 1883, the Supreme Court of Illinois decided, in the case of Wm. H. Barclay vs. Lafayette H. Smith, on appeal from the Circuit Court that a certificate of membership in the Chicago Board of Trade is not liable to be sold on legal process. In other words, these certificates are not liable to be subjected to the payment of debts under legal proceedings. The opinion said that the above point was the only one to be decided in the case, that the Chicago Board of Trade is a corporation, with the usual powers of corporations, etc., that by the twelfth section of its charter the corporation is prohibited from transacting any business excepting such as is usual in the management of boards of trade or chambers of commerce. No dividends whatever are made among the members of the corporation, etc., and that no member receives any pecuniary benefit or revenue from the corporation, or from its capital or revenue, except such advantage as he may obtain from being a member, etc., that receiving no dividends from the membership renders the certificates otherwise than property, and if the reverse were true they would be property and liable. Now in Vol. 89, Report of Court of Appeals of New York, in case of Theophilus D. Powell, as receiver, respondent, vs. Alfred Waldron et al., appellants, the court held, in substance, that a certificate of membership in the New York Cotton Exchange (having same powers and privileges as Chicago Board of Trade) "is transferable by assignment to members under prescribed rules," and that such "right is property," and liable, under legal process, for payment of debts.

On May 26 there was put into circulation a petition ad, dressed to the directory of the Chicago Board of Trade, requesting that either the regular daily sessions be prolonged until 2 o'clock in the afternoon, or that regular afternoon sessions be instituted, either between the hours of 1:30 and 2:30 p. m., or what is deemed better still, from 2 until 3 p. m. This petition, as will readily appear, is a death-dealing blow aimed at the Call Board, but there are so many ways in which a regular afternoon session would benefit the Board of Trade members, and there are so many arguments to be urged by the projectors of the petition, that it is quite likely to receive an extended signature, and many of the most prominent operators prophesied yesterday that it would receive in a very short space of time the signatures of nearly nine-tenths at least of all the members, and that a regular afternoon session would speedily become a special feature of the Chicago Board of Trade, irrespective of the effect it would have upon the Call Board or any other organization having a parasitical dependence upon the regular board. The petition was started forth upon its journey by Mr. Robert Lindblom, and its most prominent backers outside of him are C. W. Brega, E. A. Driver and O. H. Roche, but the sentiment which it expresses, it is said on good authority, is not confined to any one class of commission men, irrespective, to a great extent, of their membership in the Call Board or other organizations. One of the principal reasons for instituting an afternoon session is that it will accommodate Eastern trade. For instance, the New York Stock Exchange closes at 2 o'clock. When it is 2 o'clock in New York it is only about 1 o'clock in Chicago. It is not until after the Stock Exchange closes that Wall street speculators and others have either the time or the inclination to operate in grain, and naturally they look toward Chicago for the opportunity to do so. Recently their orders have been coming in in a bundle upon the Call Board, causing confusion, and sudden big advances in prices. To such an extent is the latter true that speculators do not get the benefits of any one day's fluctuations, but, on the contrary, many of them are seriously crippled. The larger speculators see this clearly, and are doing but little during the hours when the board is in actual session.

Items from Abroad.

In Germany crops are fine, but backward.

Shipments of wheat from India have been increasing of late.

Complaint is made from England that California wheat is darker than formerly.

At Antwerp, Remorg, a corn dealer failed for \$300,000. A lady, whose husband is ruined by the failure, committed suicide.

The grain crop of Europe for 1883 is estimated to fall short of the demands for home consumption by more than 350,000,000 bushels.

The London Corn Trade Association has drawn up another form of grain contract which they have sent to American shippers for approval.

M. Angot finds that the harvest in France for winter wheat is retarded on an average four days when the height is increased about 360 feet.

Chas. Rugel, of Paris, writes "that quite a large amount of the deficiency in the fall sowing in France has been made good by spring seeding."

The new grain elevator at Budapest, Hungary, is now completed, and will soon commence operations. It is lighted throughout by means of 200 electric lights.

The directors of the New Zealand Grain Agency and Mercantile Co., limited, of Christchurch, New Zealand, declared a dividend of six per cent. on its paid up capital.

Marseilles, France, is one of the largest milling centers of Europe and annually uses 6,000,000 bushels of hard wheat for the production of semolinas used in the manufacture of macaroni.

The India wheat crop is said to be larger than ever before. The export of wheat from that far-off country has greatly increased within a few years, and indications are that India, rather than Russia, will be our chief competitor in supplying Europe with bread.

It is found that the present grain consumption in the United Kingdom is 697,000,000 bushels, and that the Continent consumes 4,704,000,000, making a total of 5,401,000,000 bushels. The production of the United Kingdom is 332,000,000 bushels, and that of the Continent 4,735,000,000 bushels, or a total of 5,067,000,000 bushels. The meat consumption of the United Kingdom is 1,740,000 tons, and of the Continent 6,372,000 tons, or a total of 8,112,000 tons.

Official returns show that the area of wheat under cultivation in the Australasian provinces of Great Britain in 1881 was 3,361,529 acres, against 1,356,861 acres in 1871. This includes New South Wales, Victoria, South Australia, Western Australia, Queensland, Tasmania and New Zealand. The yield in 1881 was 29,675,899 bushels, which is at the rate of 8.82 bushels per acre. The average yield is only 8½ bushels per acre, so there is not much danger that that country will ever become a formidable competitor in producing wheat for the markets of the world. With a less acreage the United Kingdom produces about 80,000,000 bushels of wheat.

An English journal says "Two-thirds of the harvest year have now passed, and out of the bread-corn and flour imports wanted for the twelve months, variously estimated at from 13,000,000 to 15,000,000 quarters, we have received 13,161,600 quarters. At this rate, the total importation for the year up to the end of next August will greatly surpass any foreign and colonial supply which has ever come to our shores. The marvel is that prices have not gone down with a run to a lower point; and it would seem that not only is the prospect of next harvest in the states and elsewhere being discounted in the forecasts of speculators, but account is taken also of the augmented demands for wheat and flour both in the states and in the countries of Europe. * * * There is no sign of any exhaustion of stocks which are waiting to come to us. The attack on our milling trade is unrelenting. Of the 13,161,600 quarters of wheat and wheat flour received during the last eight months, the flour was 3,388,608 quarters, or 25½ per cent. In the corresponding period last year the flour was 17¼ per cent., and in the same eight months of 1881, 23½ per cent."

A few years ago a Western Union Telegraph company said to Mr. Beerbohm: "Sell us your dispatch. We'll pay you, and we'll collect from the subscribers. If you don't choose to sell, why, then don't. We will start a cable message of our own, distribute it to your subscribers and run you out." The old gentleman succumbed. He now sells his message to the Western Union and it sells it to subscribers all over the country. Beerbohm's methods are necessarily very different from those of an American market reporter. There is neither at Liverpool nor in London nor anywhere else in Great Britain the same kind of open grain market there is here. If there was, the old gentleman of Bishopgate street would be getting extraordinary pay for his services. English grain traders do not range themselves about a pit and shriek out what they are willing to give or take for wheat. They are too secretive and suspicious for this kind of business. The seller—the seller has generally to take the initiative—drags the buyer off into a corner and hobbles with him. The pair may go off to dinner together and whisper through the whole meal. A trade closed in one day is a breakneck rate of progress. Beerbohm must hunt out the two old-fashioned traders and obtain their figures, and telegraph, when he can find no actual trades, the next best thing to do. English buyers and sellers are very wide apart; not fractions of a cent apart, as here, but whole

shillings and whole cents apart. For this reason Beerbohm never gives complete satisfaction. No one can. When his figures are a little higher than some private cables, he is damned by the "bears," and when a little low according to the same private standards he is damned by the "bulls." The old gentleman, no matter what he is, hard earns his money, all things considered. The board of trade came very near throwing over the Beerbohm cable a short time ago. The Western Union translated the cable itself. The board demanded that it be furnished, as it always had been, with the code, so that it could make its own translation. The telegraph company was obstinate. Mr. Beerbohm sent a man across to help arrange the thing for the board. It was only on April 29, when the board of trade refused longer to take the message without the code that the telegraph company yielded.

A REPORT ON GRAIN DEALING.

A very singular report is the one made by the committee recently appointed by the Illinois House of Representatives to investigate the subjects of grain-dealing and gambling. The committee claims to have arrived at the conclusion that the manner of conducting business on the various Boards of Trade and in the exchanges, or bucket-shops, does not materially differ; and that the proportion of actual deliveries made by the Open Board and the bucket-shops, as compared with the quantities dealt in, is fully as great as the deliveries made on the Board of Trade.

Such sweeping assertions could scarcely be made unless at the instigation of parties who have lost money by gambling on 'Change, or who are directly interested in the prosperity of the other institutions referred to. For the information of those who might be misled by the statements above referred to, we may say that there is a wide and very important difference between the two, which may be defined in a very few words. On the Board of Trade there is gambling in connection with the trading that moves the produce of the country. In the bucket-shops there is gambling without any such connection. On the Open Board the connection is so thin as to be decidedly gauzy. Deliveries of produce are made as a result of the operations on 'Change and the Call Board, and there is often intermediate gambling in the line of deliveries which always has a receiver at one end and a shipper at the other. On the Open Board such deliveries are made as an apology for gambling, and do not involve the removal of the property itself, unless on occasions which are as rare as angels' visits or hens' teeth. In the bucket-shop the claim of delivery, even on that slender basis, is a fraud—nothing better than part of a confidence game.

We are free to admit that the gambling on 'Change—and there is a great deal of it—is neither better nor worse than the gambling outside. But it is only a part of the one, while it is all there is of the other. On 'Change gambling is like the tares in the wheatfield mentioned in the Scripture parable, which could not be rooted out without endangering the destruction of the grain also. The bucket-shop is simply a field of tares, with a handful of wheat-ears stuck on the gate-post as a fraudulent shield from merited destruction. The gambling on 'Change is reprehensible, but there is a great deal of speculation that ought not to be classed as gambling, and it is very difficult to separate the two. No one can deny that it is to the advantage of the producer for some one to stand ready to take care of his grain till it is wanted by the consumer. The wheat crop of the country is practically harvested within the space of one month, and is not always consumed in the next twelve months. Capital is absolutely needed to carry part of the food product over the interval between production and consumption. The use of that capital can only be obtained in one or two ways—on interest or speculation. The first fosters wrong fully as much as the second tends to gambling, and it might not require much argument to prove that the first is even more injurious to the producer than is the last. We may add that undue speculation is always followed by its appropriate punishment, and the lion's share of the retribution very seldom falls to the lot of the farmer. Indeed, that gentleman is much oftener benefited than hurt by speculative excitement if he avoids gambling himself, as the natural result of such speculation is an increase of the price of all the material which he can get to market before the flurry is over. The loss resulting from the subsequent decline is chiefly felt by the speculators who have got loaded up with the accumulation, which must be disposed of at diminished figures.

The attention of the good people at Springfield, who will, presumably, act on that report, is respectfully commended to the following figures: The last annual review published by the *Tribune* showed that \$97,000,000 worth of breadstuffs, nearly \$200,000,000 worth of live stock, and some \$85,000,000 worth of other produce were received in this city during the year 1882. Nearly the whole of that was received and shipped by members of the Chicago Board of Trade. So far as we know, only six car-loads of that grain was received by any member of the Open Board who is not also a member of the Board of Trade, and none of the live stock; nor a single dollar's worth of either shipped, except as above noted. The bucket-shops certainly did not receive from the country, or forward to the East, a cent's worth of the vast volume of produce for which members of the Board of Trade alone paid over \$300,000,000 to people in the country and received more than that from consumers in this city or elsewhere. And yet there is no perceptible difference! "O, shame, where is thy blush?"—*Chicago Tribune*.

ST. PAUL ELEVATORS.

Our reporter was at St. Paul last week, and through the courtesy of Mr. W. S. Timerman, the manager and secretary of the St. Paul Warehouse & Elevator Co., and Mr. John Riehdaffer, superintendent of elevator A, he was enabled to obtain a view of the interiors of elevators A and B, model structures of their kind, and to get some interesting facts about them. Both elevators are owned and operated by the St. Paul Warehouse & Elevator Co., composed of St. Paul capitalists who are not otherwise identified with either the grain or milling business, C. H. Bigelow being president.

Elevator B is the largest of the two, and was the last built. It has a capacity of a million bushels, and for construction and equipment it has few equals and no superiors. The elevator building is 86x210 feet on the ground, 150 feet high, and is covered with corrugated iron. It rests on a foundation of solid concrete six feet thick. The first story will average about twenty-eight feet in height, and the bins above rest on nests of four large posts. Two railroad tracks pass lengthwise through the elevator, while another passes along the north side, giving large handling capacity. Clark steam shovels are used for unloading, it taking only about eight minutes to unload a car of wheat. Cars are loaded in about the same time. There are 268 bins in the elevator of different sizes, the highest capacity of any one being 6,000 bushels. There are fourteen main elevators, each having a carrying capacity of 4,000 bushels per hour. Attached to each elevator is a 30,000 pound Howe scale. The cleaning machinery consists of four Barnard & Leas receiving separators, each of a thousand bushels per hour capacity. An addition will soon be made to this machinery. There are three stories above the bins, taken up by the scales, main lines of shafting, spouts from elevators, etc. Extending from the lower floor to the top of the elevator are stand pipes with hose connected on all floors. These have connection with a Worthington fire pump located in the engine building. Elevator A is located on the St. Paul, Minneapolis & Manitoba Railroad, about a mile back of the business portion of St. Paul, and has an exceptionally large and fine yard, there being seventeen tracks and room for 800 cars in it.

The engine building is a brick structure independent of the elevator. It contains two Wright engines of 300 combined horse power. Both can be run at once, or either separately. The steam is supplied by four steel boilers. The power is transmitted to the elevator by a 52-inch, 6 ply rubber belt, which passes over a large pulley in the elevator. Another belt of same size and 300 feet long, passing over another pulley on the same shaft, extends to the attic of the elevator, there driving two main lines of shafting, one on each side of the elevator. By means of a lever and a friction clutch on the main lines, at each of the fourteen elevators, any one, or the whole of these elevators, can be thrown in or out of motion. John Riehdaffer is superintendent, and though a comparatively young man for so responsible a position, he most efficiently fills the bill. Alex. Nichol is engineer, and a man that takes great pride in the two fine pieces of machinery in his charge. His engine room is a model of tidiness. J. M. Joy is foreman of the elevator, and from our short acquaintance with him we should say he was as capable of shedding sunshine over the institution, as his name would suggest. An artesian well is being sunk at the elevator, a depth of 450 feet having already been reached.

Elevator A is "down town," being near the Capitol flour mill. Its equipment is similar to that of the B, except that it has a capacity of only 500,000 bushels. The building is 82x120 feet on the ground and is 136 feet high. It has seventy-seven bins, and handles all the coarse grain received by the company, elevator B paying especial attention to wheat storage. The engine used by the A is a Harris-Corliss of 150-horse power. W. Stratton is engineer and J. Whyte is foreman. The main office of the company is in this elevator, and is occupied by Manager and Secretary Timerman and his son Wm. O. Timerman, the latter being bookkeeper and looking after the finances of the concern. The company have ground adjoining elevator B, upon which they intend some time to build a mate to the B, but this will probably not be done this year. St. Paul has two other elevators or warehouses, but one is quite small, and the other is not used.—N. W. Miller.

The Chicago Open Board of Trade will build a new and fine Exchange Hall near the new Chamber of Commerce, on Pacific avenue and LaSalle street. The matter was thoroughly discussed at the annual meeting of the Open Board Monday, and the site fixed upon was a lot 100x100 feet on Pacific avenue, between Van Buren and Jackson streets, directly opposite the new Board of Trade Building. The lessors of the lot are H. A. Keep & Co., and contract with them says that the Open Board shall put up a building valued at not less than \$100,000. The report of the treasurer shows that \$39,500 has been paid down on a contract to build, and it is the intention, as was stated yesterday, to issue bonds for the remainder. The building will contain a fine Exchange Hall, Call Board room, and office-rooms, and the probabilities are that the cost will be about \$150,000. There is no doubt that all the bonds will be at once subscribed for, and the plans will be let out at once. At the meeting Monday it was shown that there were 380 members of the Open Board, and that \$40,000 had been taken in on memberships. This, with assessments, office rents and other receipts, made a grand total of \$73,496.55 receipts. The sum of \$10,500 has been paid out for lease of lots for new buildings, and \$10,000 for the lease of the present quarters.

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ADVERTISING.

This paper has a large circulation among the elevator men and grain dealers of the country, and is the best medium in the United States for reaching this trade. Advertising rates made known upon application.

CORRESPONDENCE.

We solicit correspondence upon all topics of interest connected with the handling of grain or cognate subjects.

OUR FIRST YEAR.

This number rounds out the first full year of the AMERICAN ELEVATOR AND GRAIN TRADE's existence. That it has been a satisfactory year to us we think will be apparent from our pages. A paper's countenance, like that of a man, reveals pretty accurately whether life is satisfactory or not. We met with a cordial welcome from the trade, and assurances came from every side that such a journal as we proposed to issue would fill a long-felt want. How far our endeavors in that direction have been successful, our readers, of course, are the best judges; but whatever their verdict, we can assure them that our constant aim will be to increase its value both to the reader and to the advertiser.

The reader will no doubt observe that we have made a number of changes in the present issue. Several new departments have been added, which we are sure will increase the general interest of the contents. A new dress of type has been adopted throughout, which gives the paper a much neater and more attractive appearance; and for future issues we can safely promise a paper which, typographically, will have no superior among the special journals of the country. We intend to make each issue an improvement in every way over all its predecessors.

To our friends and subscribers who have favored us with their patronage, we return our sincere thanks; and our endeavor will be to give them a paper which will be a credit to the great interests which it represents.

PROPERLY BUILT ELEVATORS.

A grain elevator is apparently a very simple structure. The ordinary house of from 30,000 to 100,000 bushels capacity does not seem to require much of head to plan, or very much skill to execute; but this head and this skill are evidently not possessed by some of those who build elevators, else we would not hear of some of the catastrophes which figure in the daily papers. We refer to the bursting of elevators. We have no reference to the Milwaukee house that gave way a few days ago, and let several thousand bushels of wheat into the river; for that was caused by the settling of the foundation. But we have noted for five years back that the number of grain elevators that burst through sheer weakness, is altogether too large, and their number shows incapacity somewhere.

It must be borne in mind that a great strain is brought to bear on elevators by a mass of grain ten, twenty, and seventy feet high. No ordinary structure can be expected to stand the lateral strain which a grain bin is expected to stand;

and we advise those who are building new elevators to attend to this simple matter of seeing that the side walls are strong enough. It would do no harm for the owners of old houses to give them an examination, for the purpose of ascertaining whether they have any lateral weakness which needs remedying.

BRITISH ELEVATORS AND AMERICAN WHEAT.

Our contemporary, *The Miller*, London, Eng., has found in an American milling journal some facetious remarks taken from the columns of the former of an interlocutor, "Mr. Z.," of the "Utopian Club," attributed to the late president of the National Association of the British and Irish Millers. This Utopian says that after for a long time personally corresponding with the wheat-growers about Winnipeg, he had decided "to make arrangements for a continuous supply of wheat from that section," by erecting a huge elevator at some point in the Dominion nearest England, "so that I may draw," he says, "my wheat supplies from Manitoba direct, in through railway trucks, etc., into my own elevators from whence I can discharge the grain into ocean-going steamers." The object of this grand scheme is obvious, namely to escape the Yankee cheating in grain mixing, etc., and his exorbitant prices. Our able contemporary makes this a text for an instructive practical lecture to British grain dealers and millers. The dependence of the British markets on foreign sources for a large proportion of their grain supply is frankly admitted, but, while having access to all foreign sources, it is of the utmost importance that they should be supplied with grain of the finest quality for manufacturing flour. The wheats of different countries have different degrees of those qualities that constitute the maximum of excellence, and American spring wheat in the estimation of the chief millers of that country, furnishes at least one of these chief elements. The American millers who draw their supplies from the Northwest, where the finest wheat is produced, and who are the active competitors of the British manufacturer, and are naturally anxious to obtain the lion's share, have of late, made many complaints against the farmers there for using inferior seed, and thus causing the degeneration in quality of the Fife wheat, confessedly the best for the making of flour. The nearness of the American buyer to these sources of production, and his large control of the storage and shipping of the grain, place him at an immense advantage in this trade competition. A correspondent of a New York milling journal, writing from St. Louis, at the time a member of the firm of P. Rintoul, Sons & Co. of Glasgow, was visiting that city, says that the visitor regretted that British millers were unable to obtain the best American wheat. This writer goes on to state that "Continental Europe obtains a large supply of choice American wheat via New Orleans, while shipments for England, made mostly via New York, do not improve by passing through the Chicago and other elevators." The charge against the American shipper is that he sends inferior or mixed wheats, under false gradings. This is especially spoken of in reference to the California white wheat, cargoes of which, it is said, have been found darker colored than the samples, and mixed more or less with amber wheat. The moral of all this is, the advice to British dealers to take a leaf from "Utopian's" scheme, and erect elevators in America with British capital, managed and supplied by British agents on the ground. To the acceptance and practical application of this advice by our British cousins, we give a hearty welcome. American capital is ample, is controlled by those on the spot "to the manor born," and ready for almost unlimited investment in elevators, milling machinery or any other progress-creating appliances that will pay. We are not eager especially to increase our exports of raw grain, as compared with the products of our extensive and rapidly increasing milling facilities, but if British capitalists think that they can use their money here, so as to obtain their desired objects, the result would be to cheapen good flour for our vast body of American

bread consumers, while our capital might find a healthy occupation in re-creating our foreign shipping and commerce destroyed by our late war, the command of which has made Great Britain the mistress of the seas, and empress of nations. It will be a matter of some surprise as well as amusement to the Chicago grain dealers after the long months filled with bitter charges on the part of producers and shippers from the West, and dealers and shippers here, as to the "unjustly high grading," as asserted, of Chicago inspection to learn, both from New York and Glasgow, that the passage of wheat through the Chicago elevators is dangerous to the interests of trade, and the purchasers!

OUR CAPACITY FOR WHEAT PRODUCTION.

English statisticians, it appears, have again been putting forward the statement, in mitigation of gloomy predictions arising from the evident present effects of American competition in the production of wheat, to the effect that the limit of the increase of the wheat-producing area of this continent had been nearly attained, through the exhaustion of our virgin lands. But to any one who takes note of the rapid extension of wheat production in the vast territories of the West as they are opened to market facilities by the extension of railroads, this statement seems a simple *reductio ad absurdum*, contradicted by facts patent to "the wayfaring man, though a fool." *The New York Public* has replied to this statement with the facts of the increased wheat production in the older states. If the experiments prompted by the Agricultural Department on the present capacity of New England for wheat growing are considered, it is evident that the decline there of this industry is not due to natural unconquerable difficulties, but to the greater profit of labor in other ways. In New York, the oldest of the important wheat-growing states, the production has steadily increased from year to year in spite of the increased density of population, and the demands of other crops upon her soil. In Ohio, the oldest and most densely populated of the Western states, the wheat production has nearly doubled every ten years since 1850, and yet, it is said, that scarcely three-fourths of her arable area is under cultivation. In 1880, Ohio produced 1,250 bushels of wheat to the square mile of its entire area. It is assumed that this is a fair standard of the productive capacity of the ten Western and Northwestern wheat-growing states, having an area of 753,550 square miles, under present conditions, without employing more expensive methods, which would give an aggregate of 945,000,000 bushels, nearly twice the crop of the whole country for any one year. We have, says the *Public*, only commenced to test the capacity of this continent for wheat production. "If the export demand were increased to 1,000,000,000 bushels annually, there would probably be no difficulty in profitably growing wheat to satisfy it at present prices." The competition of the future America has no cause to fear if the question of the exhaustion of her wheat-producing capacity is alone considered. The small cloud that appears on our horizon, arises from the anticipated development of other virgin soils, equally fertile and productive, in Australia, India, and Southern Africa.

A GRAIN dealer in Ohio writes us to say that a number of people in his town were taken in to some extent by the Flemming & Merriam swindlers, and he wishes to know if any of the creditors ever got their money back, and whether there is any likelihood of receiving anything back in any way. So it seems the returns are not all in yet. Well, experience in ways that are dark is the only dividend that will be declared on the stock certificates of any of that gang of Chicago swindlers, or that any of the gullible stockholders will ever receive. We would advise holders of the nicely printed certificates of these swindling firms to frame them and hang them in a conspicuous place to remind them that the fools are not all dead yet, and therefore that they have plenty of relatives living.

Editorial Mention.

BARLEY growers have been troubled with the joint-worm fly.

WE welcome *Le Moniteur du Commerce*, of Montreal, among our new exchanges.

DAKOTA and Nebraska seem to have the principal "boom" in elevator building just now.

JUDGING from the tenor of letters received from our advertisers business is good with them pretty generally.

IT is now said that the depredations of the wheat pest in California have been very greatly over-estimated.

THERE has been some rather unsteady guessing about the extent and quality of this year's crop of winter wheat.

RATES on corn from Chicago to Buffalo have been ruling about $2\frac{1}{2}$ cents, and on wheat $2\frac{3}{4}$ cents, and business the past week has been very brisk.

TO-MORROW (June 16) the American Society of Civil Engineers will inspect Armour, Dole & Co.'s Elevator "D," and Rock Island Elevator "A."

THE St. Louis Merchants' Exchange has refused to accept the proposition emanating from New York, to adopt a national standard for export wheat.

THE Railway Exposition in this city has been a grand success. A description of the principal exhibits of interest to our readers is given elsewhere in this issue.

THE late speculative dealings in wheat, cotton and petroleum are arousing a great deal of attention and eliciting unfavorable comment from thoughtful men.

THERE are over 4,000,000 bushels of spring wheat yet in sight in Minnesota and Dakota. Dakota's crop this year will probably reach 16,000,000 bushels.

SOME country papers are still carrying advertisements of R. E. Kendall & Co., and that crowd. Their editors are either poorly informed or poorly furnished with morals.

MR. M. F. SEELEY of the firm of Seeley, Son & Co., elevator builders of Fremont, Neb., is in the city attending the Railway Exposition, where he exhibits a fine model of the Seeley Elevator.

THE cry is going up everywhere that we need closer grading of wheat. Wheat is certainly too valuable a cereal to be loosely graded; and too many grades would be less of an evil than too few.

THE cental stands but little show of displacing the bushel as the standard of grain measurement in England. Over 700 members of the London Corn Exchange are opposed to the introduction of the cental.

WE think the present issue will be conceded to be a vast improvement in every respect over any previous number of this journal, especially in a typographical way. Some more improvements will be added next month.

SOME of the solons at Springfield had some hard words to say about grain inspection at St. Louis. They alleged that it was controlled by the St. Louis Merchants' Exchange, and it has been a systematic scheme of robbery of the grain shippers and grain producers of Illinois by means of short weights and irregularities for which there is

no redress by the sufferers. State inspection, they argued, was the only means of protecting the citizens of Illinois against the practices which have frequently culminated in losses reaching as high as 100 bushels to the car load of wheat.

A CORRESPONDENT at San Francisco writes us that barley and oats were being cut in that state on June 9, and the farmers were about to begin cutting the wheat.

THE Southern Pacific Railroad has opened up a rich grain country, and the Northern Pacific has done and will do the same thing. We look for a marvelous expansion of our grain interests in the next five years.

MESSRS. J. M. HAYES & Co., commission merchants at Cincinnati, write: "Your paper is the best that we have seen. The general news and law decisions in any number are worth more than the price of the yearly subscription."

WM. K. EVERDELL & BRO., General Commission Merchants at 28 Moore st., New York, have our thanks for a fine lithograph of the new Produce Exchange Building in that city. A short history of the Exchange is given elsewhere in this issue.

THE GREENE AUTOMATIC CUT-OFF ENGINE, made by the Providence Steam Engine Co., of Providence, R. I., has made an enviable record. The manufacturers, who are also builders of boilers, tanks and sheet iron work, will be pleased to answer inquiries, furnish circulars, estimates, etc. to interested parties.

IT is rather curious that out of all the millions of bushels of wheat which we sent to Europe last year, not a bushel was carried in an American vessel. Thirteen hundred vessels were employed to do the carrying, and pretty nearly every civilized country was represented in their ownership except the United States.

MR. S. E. WORRELL, of Hannibal, Mo., inventor and maker of Worrell's Combined Drier and Cooler, was among our callers the past month. Mr. Worrell is a practical man who has been interested in the grain business for many years, and his machine was the result of his acquaintance with the needs of grain men, corn millers, etc.

WE continue sending out many thousand sample copies and we want those to whom they are addressed to look this paper over carefully and decide whether it is worth a dollar a year to them. If they think it is, send along your names and dollars. Judging from the tenor of letters received from our advertisers business is good with them pretty generally.

ATTENTION is directed to the neat advertisement of Messrs. Salisbury & Cline, 109 Madison St., Chicago, appearing in another column. They are the Western agents for the well-known Boston Belting Co. and have supplied many of the largest elevators in this city and other points with belts. Messrs. Salisbury & Cline carry everything in stock in the shape of rubber goods.

BRADLEY'S INSULATED AIR COVERINGS for boilers, steam pipes, etc. are now made by Messrs. Shields & Brown, who are successors to the Bradley Mfg Co. The new firm are now permanently located at Nos. 78 and 80 Lake St. in this city, where they may be found or whither letters of inquiry may be addressed. They will be pleased to send illustrated descriptive circulars to interested parties.

ABOUT the cheekiest attempt to play a confidence game that has come to our notice for some time, was one which a chap in Murfreesboro, Tenn. tried to play on Robert Lindblom & Co., of this city, well-known commission merchants. The brilliant Tennessee genius wrote to the above-named firm as follows: "The Jews of this place have no synagogue, and of their own means are not able to complete one. The thought has occurred to me to make a few deals in grain, the

proceeds of which are to be devoted to that purpose. I write you to get you to give me the advice necessary to make these deals successfully for I believe you are in a position to know what the market will do. My object is to make this money out of the bucket-shops. We do not ask for money, but for information which will be kept secret and inviolate. This is written in all sincerity, and I trust you will not consider me presumptuous, but will assist us in this way to build a house of worship."

THE publisher of a paper alleged to be published in the interests of the grain and provision trades, has got into a heap of trouble through some disreputable transactions as a usurer, and a suit for divorce brought by his wife on the ground of extreme cruelty. His alleged paper has disappeared of late, its last appearance being to give Flemming & Merriam and others of that ilk a good send-off editorially.

SOME of the precautions urged by insurance companies often seem frivolous, no doubt, to the owners of property; but very often the observance of these precautions has prevented disastrous consequences. At the burning of Douglas, Stuart & Forrest's elevator in this city a week ago, their extensive oatmeal mill was saved by the fact of the connection between the elevator and mill being guarded by an iron door.

WE want our readers to notice the new advertisement in this month's issue of Cutler's Patent Bins, of which Messrs. Cutler & Co. of North Wilbraham, Mass., are the patentees. These bins are adapted for cooling heated grain and for storing and drying damp grain. They require but little more room than ordinary storage bins, and are believed to be just what is needed. Messrs. Cutler & Co. will send circulars on application being made to them.

THE NEW YORK BELTING & PACKING Co., the most extensive manufacturers of rubber belting, packing and hose in the United States, have just removed to their new building, No. 13 Park Row, where they will be happy to see their many friends and customers. The new quarters of the company have been refitted with a special design for the firm's peculiar line of business, and are most complete in every respect. It is located directly opposite the postoffice and Astor House.

THE County Court of San Joaquin county, Cal., has decided that some grain stored in Stockton is liable for the city taxes in addition to that collectable for the county. That is one of the "fool decisions" that courts make periodically. The result of course will be to divert grain from Stockton. Grain handling and the cognate interest, milling, are the leading interests of Stockton, and of course some smart-Alec wants to saddle double taxation upon it. It is always so.

THE Chicago Board of Trade and the East bound railroads are still far apart as to the settlement of their differences. At a recent meeting called to adjust their difficulties, the Board of Trade committee refused to recede from the position heretofore taken, that the railroads must allow disputed claims of members of the board to be settled by arbitration. They did not insist that such arbitration should be made by the Arbitration Committee of the board, but were willing to submit to outside arbitration, either party to select one person and these to select a third. The railroad people contended that they could not send representatives on the floor of the exchange to solicit business as long as they were subject to expulsion for refusing to have disputed cases arbitrated. They could not see why the railroads, which were granting the board many important privileges, should be denied such privileges as were accorded to telegraph, insurance and other corporations. Cases might arise, it was argued, of such vast importance that only a decision of the court could properly decide them, and yet the board claimed that such cases must be settled by arbitration or the railroad so refusing would be expelled from the floor of the Exchange.

THE developments of the present session of the Illinois Legislature show that the railways will stand watching in the matters of legislation. Our present state laws against unjust discrimination by railways are fair and equitable to the railroads and shippers alike, and if the railroads attempt to emasculate these laws, they may as well look out for another dose of granger legislation. It looks as if the railroads were inclined to be hoggish; and the people will, no doubt, employ the language of Mr. Nip: "We like pork, but darn a hog."

MESSRS. BRYANT, McCAMPBELL & Co., commission merchants and members of the Chicago Board of Trade, filed a bill in the Circuit Court on June 11 against the Western Union Telegraph Co. to restrain it from taking away their "tickers." They state that they have agents and a branch office in Detroit, Mich., and have been receiving these market quotations of the Chicago Board of Trade over a "ticker." The Telegraph Company notified them a few days since of its intention to remove the instruments. The complainants charge that the company has no right to discriminate against them, as they are members of the Board of Trade and are entitled to its quotations, and to form, as they propose to do, other commission houses in Detroit. A temporary injunction was granted by Judge Tuley, under a bond for \$500.

THE manufacture of iron roofing and siding has grown to be a business of very large proportions, especially of late years, since the value of metal sheathing has come to be more and more appreciated. For elevators, iron sheathing roofing is especially desirable, since such buildings are almost always necessarily located on railways, and sparks from locomotives are prolific sources of fires. But aside from this particular hazard (and it is a very large one), fire from without should always be guarded against. Messrs. Moser & Thompson of Cleveland, Ohio, are large manufacturers of fire-proof roofing and siding, and make corrugated iron siding for grain elevators a specialty. They have the indorsement of a number of elevator owners and builders, the testimonials of a few of whom are printed in Messrs. Moser & Thompson's advertisement on another page of this issue.

THE FOOD SUPPLY IN EUROPE.

THE problem of the pressure of the population of the world against its food production is an ever-recurring one, and affects deeply the calculations and prospects of trade, especially in reference to grain. Scientists seem generally to have admitted the statement of Malthus that while the increase in population is in a geometrical ratio, that of food is only arithmetical. Since the terrible general and destructive wars of the early part of the century, nations have become consolidated, better governed, with less of one-man power, and from many causes the periods have been lessened as well as the destruction of life of modern warfare; while more and more as the destructive qualities of weapons and the expense of armies have increased, the tendency increases toward arbitration in place of actual conflict. Science, also, with her improved hygienic knowledge, has added several years to the longevity of generations. Within the last fifty years the population of Europe and America has doubled, and of the total 190 some forty millions have been added to the population of the United States. But while in the latter the limits of production, with the addition of cultivated land, and a higher degree of fertilization and tillage, lie in the distant future, those of Europe, with the exception of Hungary and Russia, have long since been reached, and her demand upon the surplus of the world's food production is a steadily increasing quantity, while the prospect is of its continued growth. Less than half a century ago all the European countries except England raised a surplus of grain; this year it is estimated that the grain crop in those countries will fall short of their home consumption 350,000,000 bushels. Taking a period of thirty years, Europe in 1850

required only \$13,000,000 worth of grain and breadstuffs from foreign sources; in 1880 her imports of the same were valued at over \$288,000,000, while of other provisions the increase in value was some \$140,000,000. As the annual increase of population to these already crowded territories is four millions, it is a practical question of pressing interest, how are they to be supplied with food, and from what sources? Our relations with England, through kinship and commerce, are so intimate that a special notice of her food condition and prospects will be of interest. The *London Times* has treated this question on a large scale, involving all the commercial relations of the United Kingdom, and sounds a note of warning that "the condition of affairs are on the verge of a crisis." The *American Exporter*, after quoting the Thunderer's "horoscope of doubt and dread," asks: "How long can England hold out, buying \$500,000,000 per annum more than she sells?" At present she is the banker of the world, holding its securities and doing its vast carrying trade, but with a balance of trade against her during the past ten years of nearly \$4,800,000,000, how long could she stand were these advantages to fail, or should the commercial world demand a settlement of accounts?

The total exports of breadstuffs and grain from the United States to the Island Kingdom in 1882 were over \$115,000,000, and the grand total of all provisions was over \$206,000,000. This assuredly sustains the "doubt and dread" of the *Times*, especially in view of the steady decline for years of English agriculture, both in acreage and productiveness. While in this day of moral as well as physical advancement the misfortunes of other nations should be no cause to us for rejoicing; the American producer can see in the outlook no reason to fear that his highest cultivation and largest yields will not find ample markets, and full remuneration.

THE BUCKET-SHOP CASES.

THE "Bucket Shops" made their appearance before Judge Tuley on May 23, on motions to dissolve the injunctions preventing the removal of their "tickers," etc. The case of the Public Grain and Stock Exchange vs. the Western Union Telegraph Co. and the Board of Trade—was considered as legitimate, owing to the fact that the customers of this Exchange are entirely in the country and all their orders are made by telegraph, and it did not appear to the Judge as proven that its business was of the nature of gambling. On the general question, as to whether the Telegraph Companies occupied the position of common carriers in the disposition of the telegrams containing the market quotations on the various commercial Boards, and transmitting them over the country to its customers who had "tickers," Judge Tuley differed from Judge Blodgett, and decided that these companies were the servants of the public, and could not legally refuse to furnish these quotations. The claim of the Western Union Company that this was only incidental business, and private, was compared to the action of common law in regard to the express carriage of railroads, although originally it was no part of their duty, yet having carried express matter for many years, thereby creating a public necessity, by usage they had made it their duty, and they could not legally discriminate as to their customers in fulfilling it. The telegraph companies had in effect done the same thing in carrying these quotations, and had rendered them a public necessity in buying and selling stocks, grain, etc., so that they were now indispensable to trade, and the companies could not be allowed by common law to discriminate as to the parties receiving them as long as they carried on the business. To permit them to do so, would be to allow them to commit a fraud on, and to irreparably injure complainant and others engaged in business requiring this information. The Board of Trade, the Judge stated, was not engaged in a "moral reform," and did not claim to be in fact, but was working simply for the special interests of its membership in the competition of trade. The motion for a dissolution of the injunction was overruled, and the injunction retained until the final hearing. In

the similar case of the Metropolitan Grain and Stock Exchange vs. the Baltimore & Ohio, Western Union, and the Gold & Stock Telegraph Companies and the Board of Trade, Judge Tuley agreed with Judge Moran that the complainant's business was entirely of the nature of gambling or betting on the price of grain, and decided that the injunction should be dissolved.

On May 25, Judge Moran decided the motion to dissolve the injunction in the case of the Public Grain & Stock Exchange vs. the Baltimore & Ohio Telegraph Co. and the Board of Trade. This was precisely the same in principle as that of the same Exchange and the Western Union decided on the preceding day by Judge Tuley, and the opinions and decision were very similar. The question of gambling did not appear in this case. Judge Moran said that a company that had the right to condemn land for the purpose of erecting wires to transmit commercial news could not discriminate among legitimate public dealers as to furnishing it, and claim that it was incidental. This would be contrary to the fundamental principles of public policy governing chartered corporations. The Court of Equity is the public's safeguard against the oppression of secret monopolies. The power of the Board of Trade to control its quotations before giving them to the telegraph companies was not decided. Upon this point Judge Moran intimated that he differed with Judge Tuley as to whether the Board of Trade could be compelled to furnish its quotations, or were so charged with public interests as to render the public entitled to them. The motion to dissolve the injunction was overruled.

THE GREAT AMERICAN WHAT-IS-IT.

This journal has steered clear of the provision trade and provision topics, as a rule, leaving the discussion of the American Hog in Germany, and the "oilymargarine" trade to our esteemed contemporaries. But the developments brought about by the refusal of McGeech, Everingham & Co. to receive several thousand tierces of lard on June contracts on the ground of its being adulterated, and the subsequent investigation of the charge, are such as to make any individual possessed of a normal stomach, gag at the recurrence of every meal. For it has been shown that lard as made in the factories in Chicago, contains pretty much anything and everything that will melt. Tallow, cotton seed, oil, heads, tails and guts, and for ought we know, horns, are put into the vats and come out labeled "refined lard." It has been proved that there are "secrets" connected with the manufacture of lard. When our mothers used to "try out" lard on Saturdays it probably never struck any of us that the proceeding was very mysterious; but the manufacture of lard on a large scale is conducted in secret because it would not do to let the public know the ingredients that are put into their food. It is pretty well known what oleomargarine is made of, and it is known to be made in a cleanly way; but lard! What is it? Smell it melting in that cheap restaurant across the way. It is a veritable pestilence. It stinks.

TAXING COMMISSION MERCHANTS.

Mr. Chas. Randolph, Secretary of the Chicago Board of Trade, in a letter of June 8 to Alderman Wanzer, expresses the views of a number of the members of the Board on the validity of the proposed special tax by the city government, by way of a license fee on all brokers in commodities, and money and exchange brokers, doing business in the city. Mr. Randolph states the proposition that the power of the city government is limited by the organic act of the legislature of Illinois, accepted April 28, 1875, or the expressed powers therein delegated in express terms, or implied, subject to the constitution of the state. Article 9 of the Constitution of Illinois authorizes the Assembly to tax certain classes of business, such as "brokers," "merchants" etc., but provides that such taxation shall be "uniform as to the class on which it operates," and also that it "shall be consistent with the principles fixed in the constitu-

tion." Municipal corporations may be authorized to impose taxes, but they must be "uniform in respect to persons and property within the jurisdiction of the body imposing them." The Secretary claims that this tax on brokers is not a regulation of a business needing municipal control for the public good, and that the uniformity referred to above has reference to the whole state, unless otherwise specified, and that a true construction of the Constitution would vitiate an ordinance imposing a license on brokers in the city of Chicago only. Mr. Randolph thinks that the same construction should be placed in the last clause quoted as to this uniformity extending throughout the state, while the article specifies as the subject of general and special taxes "real and personal property." If the legislature intended to give the city such a power in this view, its act would be unconstitutional. The propriety of such an ordinance is objected to in this letter on the ground that the "broker" is employed in negotiation of transactions between two principals who consummate the business, and receive too small a remuneration to afford the burden of a special tax, and "it seems a very unjust discrimination against a very small business, the transaction of which calls for no special protection from the city government, and causes it no special expense."

ELEVATOR FIRES.

There seems to have been an epidemic of elevator fires the past month. By insurance companies the grain elevator or warehouse is classed as an undesirable risk, and judging from the last month's record alone, such would seem to be the case. But a single month's story should hardly be accepted as a criterion.

To our view, extra-hazardous fire risks may be classified, as *first*, those which from the nature of the business carried on, are liable to burn; and *second*, those which from their construction are liable to be destroyed if once they take fire. We think that elevators clearly belong to the second-class. The running machinery in elevators is limited in quantity, and most of it is slow running machinery, at that. But elevators are built almost exclusively of wood. There is immediate connection by means of bins and elevator legs between all the stories of the house, and a fire once started, unless speedily discovered, has a fine opportunity of doing a perfect job.

There are a good many preventive measures which the owners of elevators can adopt to protect themselves. The first means suggested is to guard against fire from without. To our positive knowledge a very large percentage of all elevator fires originate from sparks or flames from without. Fire proof sheathing and roofing can effectually dispose of this hazard. The friction of machinery within is the second great cause of fires to be guarded against, and this is often a problem that will tax the builder's or owner's ingenuity. Then, the different stories should be isolated from each other as much as possible, that is, safeguards should be adopted against the spreading of fires once started, from one story to another. The grain elevator is not a hopeless hazard, by any means, and we think that a little more serious thought on the subject by both owners and insurance companies, will develop many ways by which fire can be successfully defied.

AMERICAN GRAIN AND AMERICAN BRAG.

The St. Louis *Republican* rebukes the "arrogant opinion of Americans, that we produce all the grain and flour, and that England and France are our dependencies for these foodstuffs." France, it states, raises about half as much wheat as we do, and the Russian part of Odessa is usually a large replenishing point, while India is a formidable competitor in the English markets. The English government aims to promote the production of wheat in her colonies, while the European people wish to buy of us as little as possible, looking upon ours as a nation of reckless gamblers. While producing the largest cereal crops of the world, we should remember the crops abroad, and the increasing reserves of Australia, India, etc.

Our sagacious contemporary does well, perhaps, to rebuke spread-eagleism, and remind us of these facts. But we believe the thoughtful producers and dealers of our country are fully informed by daily and hourly communications, and their careful study of all these matters, and that hopes are built upon the steady increase of the demands of commerce and all its incidents, and that our reasonable calculations are not liable to disappointment.

SPRING WHEAT.

The indications early in May as to spring wheat were of a decreased acreage in Minnesota and Iowa, and an increase elsewhere, especially in Nebraska and Dakota. The backwardness of the season was considered an adverse element. But the St. Paul *Pioneer Press* says that practical experience shows that early sowing does not insure a good yield, and wheat sown in April and May oftener produces a good crop than when hurried into the ground in March. The main danger in that section is from the conjunction of the milk stage of the grain with the hot days of late July, and not late sowing, cold springs, etc. Late sown wheat is more likely to escape this danger than that maturing in the early summer. Wheat seldom hardens enough to be safe before these mid-summer heats; the best results are gained when it matures in the cooler season. "Backwardness of the crops" is a "favorable element." The soil is at present reported to be in a good condition, the plants are healthy and vigorous. The estimate of the Minneapolis millers of 50,000,000 bushels of spring wheat from Minnesota and North Dakota, is likely to fall below, rather than exceed the result of the harvest.

THE GRAIN TRADE OF THE UNITED STATES.

The grain trade of the United States, viewed in all its features, is one of the chief marvels of modern commercial history. To trace its rise and progress would be almost to complete a record of the development of this entire continent, for it has been the leading agency in the opening up of seven-eighths of our settled territory. First, in the march of civilization, came the pioneer husbandman, and following close on his footsteps was the merchant, and after him were created in rapid succession our ocean and lake fleets, our canals, our wonderful network of railroads, and in fact, our whole commercial system. The grain merchant has been in all countries, but more particularly in this, the pioneer of commerce, whether we refer to the ocean or the inland trade, and not till he was established could other commercial adventurers find a foothold. The commercial history of the United States is based mainly on breadstuffs—staples always marketable at some quotation wherever the human family dwells.

The development of our agricultural resources, and the increasing demands of Europe for foreign breadstuffs, seem to have continued at pretty regular pace. As the production of the United States increased, new and more extensive markets have been thrown open. For upward of half a century the extension of the manufacturing interests of Great Britain have been gradually but surely rendering the country more and more dependent upon other nations for the breadstuffs with which to feed her people; and from a grain-exporting country, as she was a little over half a century since, she now finds herself in a position in which she has to import annually immense quantities of grain. Had that country fifty years ago been as dependent as she is now upon other nations, with the grain resources of that period, there would have been much suffering among the poorer classes everywhere; while, on the other hand, without this European demand for the grain produced in the United States, the same inducements for opening up the fertile lands of the Western states would not have existed. Capitalists would not have been encouraged to construct our immense canals and lines of railroads, nor to have built the fleets of grain-carrying vessels which traversed the lakes and seas. The steady and increasing demand for American breadstuffs in Europe greatly stimulated the production—made the unbroken and wild, yet fertile wilderness and prairie attractive to the agriculturists of all countries, and created a commerce for which history has few parallels. At the same time it has enriched our country beyond all calculation, enabled us to pay our European debts, given us an enterprising population, drawn from the industrial classes of every nationality, state, or kingdom of the Old World, and has endowed millions of human beings with wealth, and the rights and privileges of free institutions.

Commencing at an early period with the scant products of the Atlantic states, the grain trade was gradually pushed up the Hudson River as far as navigation would permit; and where that ceased the Erie Canal commenced and carried it to the great lakes. It was on the completion of this great work that the real history of

the grain trade of the United States began. Then it was that our inland seas became the highway of a commerce which has already attained a magnitude beyond precedent. At the same time the grain trade was steadily progressing up the Mississippi River into the heart of the West, and on its banks were built large and populous cities, the great depots for the rich valley of that river. The grain trade has progressed year after year, from small beginnings, till now it has become one of the leading interests of the country, and among the most important in its influence on the world, as on it depends much of the peace, happiness and prosperity, not only of the people of the United States, but also of many of the states of Europe.

Fires, Casualties, Etc.

Miller's elevator at Grove City, Minn., has been burned with its contents.

The grain elevator and its contents at Putnam, Ill., together with the C. R. & P. R. R. depot, burned May 23. Loss about \$5,000.

The warehouse of the Chicago & Northwestern Railroad at Escanaba, Mich., was burned on May 21, with a part of its contents. Loss, \$3,000.

The elevator at Donnelly, Stevens Co., Minn., owned by L. H. Stanton, son of the late Secretary of War of that name, was burned lately, involving a loss of \$8,000; insured for \$6,000.

The grain warehouse of W. Bullen at Arlington, Wis., together with a quantity of grain, was burned on the morning of May 25. The loss on the warehouse was \$1,500. The fire is thought to have been the work of an incendiary.

The oat meal mill and a portion of the elevator at Oregon, Ill., belonging to Douglass, Stuart & Forrest of Oregon and Chicago, were destroyed by fire on June 2. The loss on the building was \$35,000; on the stock, \$30,000; partially insured. The mill and elevator were wholly destroyed by fire five years ago.

The elevator at Fond du Lac, Wis., belonging to the estate of J. & C. Frey, took fire from an adjoining building on May 20, and was consumed, together with the grain in it belonging to W. H. Tibbets. The loss on the building was \$4,000; insurance, \$2,500; loss on the grain, \$2,500; insured for \$2,000.

W. D. Speer of Joliet, Ill., manager of the Matteson Elevator, and a brother of J. D. Speer, of Marsh & Speer, Chicago grain shippers, committed suicide on June 6, by shooting himself. He was well to do, financially, was universally respected, and the act was prompted by continual ill health, and the conviction that he could never recover.

At 4 o'clock on the afternoon of June 6, the addition to the Northwestern Marine Elevator, owned by Manegold Bros. & Kershaw, burst under a pressure of 115,000 bushels of No. 2 wheat. The walls fell, owing to the settling of the foundations, and about 10,000 bushels of the grain slid into the river. The loss on the building, which gave way in several places, was about \$5,000.

The malt house and elevator of Louis C. Huck & Co on Canal street, in this city, were partially destroyed on the evening of May 24, by a fire originating in a planing mill adjoining, inflicting a loss of over \$60,000. The Huck malting concern is one of the largest in the city, being a four story brick with dimensions of 200x220 feet. It was erected some six years ago at a cost of \$120,000, and was filled with malt from the roof to the basement. The rear part of the building adjoining the planing mill was known as Elevator "A," and contained 50,539 bushels of malt. The total destruction of the contents of Elevator "A," valued at \$64,000, puts the loss in the neighborhood of \$90,000. The elevator was insured fully up to its value, \$130,000.

On June 9, at about 6 o'clock A. M., a fire broke out in the grain elevator of the "Imperial Mills" of Messrs. Douglas, Stuart & Forrest, located at the corner of Dearborn and Sixteenth street, Chicago, Ill. The elevator and warehouse were destroyed, while the oatmeal mill, separated from them by iron doors was saved. The fire originated in the engine room of the elevator, and it is supposed, may have been caused either by sparks from the chimney of the engine blown through some crevice; or the oat dust taken from the stones in a heated condition and put in the bin room, may have spontaneously ignited. The fire department were prompt and efficient bringing into requisition the new telescopic tower for the first time. The elevator was 60x130 feet, and 114 feet high, with a capacity of 150,000 bushels, and used exclusively for the oats and barley mill belonging to the proprietors. The buildings were established in 1879, and the following year the elevator which stood on the place of the one just burned, burst under the pressure of grain, at a loss of \$75,000. The present loss is supposed to be about \$100,000; insurance \$62,000. The firm owns elevators at Cedar Rapids, Iowa, and at Oregon, Ill.; the latter was burned on June 7, at a loss of \$60,000. The partners are Geo. Douglas of Cedar Rapids, Iowa, and Robert Stewart and John Forrest of Glencoe, Ill.

The Western Grain Dump Co. of Lincoln, Ill., has been incorporated at Springfield, Ill., with a capital of \$50,000. The incorporators are J. D. Leslie, N. E. Pegram, and O. A. Carpenter.

Elevator and Grain News.

Boston parties are going to erect an elevator at Mandan, Dak.

John Reed, grain dealer and miller at Curveton, Ind., has failed.

Two new grain elevators are to be built soon at Somers, Wis.

A. D. Taylor, grain dealer at Holyoke, Mass., has sold out to R. T. Prentiss.

A second elevator is being erected at Hope, Dak., with a capacity of 75,000 bushels.

Smith & Mallon, grain dealers at North Bend, Neb., have sold out their business.

S. Caldwell and Hodgson & Hancock, grain dealers at Avoca, Iowa, were burned out recently.

Dewar & Co. succeed Dewar & Kirkpatrick in the elevator business at Solomon City, Kan.

Randall's elevator at Eau Claire, Wis., has been sold and will be converted into a flouring mill.

The Mazeppa Mill Co. at Mazeppa, Minn., is about to erect a 100,000 bushel elevator at a cost of \$75,000.

A new elevator of 45,000 bushels capacity will be built at Mt. Clemens, Mich., this season at a cost of \$6,000.

Messrs. G. W. & C. A. Lane of Exeter, N. H., have taken a contract to build an elevator at Alexandria, Va.

The Pillsbury Elevator on the East side at Minneapolis is putting in some wheat driers, and adding two elevators.

Messrs. Pillsbury & Hurlburt are preparing to erect a 75,000 bushel elevator at Niagara, Dak., on the west line.

Packard & Wright of Schuyler, Neb., have just started up their new 80,000 bushel Seeley Elevator, and it works like a charm.

Ed Durant, formerly of the "City Mills," Milwaukee, is now at Arvilla, Dak., where he has charge of a 150,000 bushel elevator.

Two elevators will be built at Tyndall, Dak. It is expected that 200,000 bushels of wheat will be received at that point this year.

The Elkhorn Grain Co. of Elkhorn, Neb., are building a 15,000 bushel elevator. Seeley, Son & Co. of Fremont, Neb., have the contract.

Clark, Heaton & Co. of Weston, Neb., are building a 20,000 bushel elevator. Seeley, Son & Co. of Fremont, same state, have the contract.

Elias Runyon has withdrawn from the grain and coal firm of Elias Runyon & Sons at New Brunswick, N. J. His two sons continue the business.

The Nurdyke & Marmon Co. of Indianapolis, Ind., furnish the plans and machinery for an 80,000 bushel elevator to John Hoffer of Harrisburg, Pa.

The Missouri Pacific Railway Co. will shortly erect a grain elevator convenient to its shipping at Galveston, Texas, and another one at Houston, Texas.

J. C. Lamb & Sons, of Inlay City, Mich., have consolidated business with Lamb & Co., in their elevator, store, etc., under the style of J. C. Lamb, Sons & Co.

Himbaugh & Merriam of Omaha, Neb., are building three elevators at different points in Nebraska. Seeley, Son & Co. of Fremont, Neb., have the contract.

Geo. A. Weiss has taken out a permit to erect on Bloomingdale Avenue in this city, a six story malt house and elevator 110x100 feet in size, to cost \$100,000.

Tucker & Son of Oxford, Ohio, have placed an order with the Nurdyke & Marmon Co. of Indianapolis, Ind., for the plans and machinery for a model elevator.

We were in error in stating last month that Mr. A. B. Tredway of Nora Springs, had sold his elevator to E. S. Wheeler. It was his banking business only, that he sold out.

Morse & Sommir's grain warehouse at Murdock, Minn., was wrecked during a severe gale one night recently. There were 40,000 bushels of oats in the elevator at the time.

The Millers' Association of Minneapolis, have purchased over 14,000,000 bushels of wheat this season, and expect to purchase 2,000,000 bushels more of the present crop.

Mr. A. T. Rodgers of Beloit, Kan., has placed his order for a complete elevator outfit, including a 20-horse power engine, with the Great Western Mfg. Co. of Leavenworth, Kan.

The Kansas Central R. R. Elevator Co. of Leavenworth, Kan., are increasing their capacity, and have placed their order for machinery with the Great Western Mfg. Co. of that city.

Brandon, Manitoba, has granted exemption from taxation for twenty-five years to an elevator which Messrs. Ogilvie & Co. propose to build. The elevator will have a capacity of 75,000 bushels.

The Nevada Warehouse & Dock Co.'s warehouse at Port Costa, Cal., will be 280 feet long, 185 feet wide and 52 feet high. It will have a storage capacity of 100,000 tons, and will cost over \$250,000.

Mr. E. L. Bowen, one of the prominent grain merchants of Galva, Ill., has completed one of the largest inland elevators west of Chicago. It is some fifty feet high, by sixty long, and thirty in width, with a capacity

for about 170,000 bushels. The machinery is all new and, with a switch from the C. B. & Q. road running within proper distance, he can handle all the grain rushed in in the busiest season.

The elevator at Grove City, Minn., recently destroyed, was owned by the Minnesota & Dakota Elevator Co. of Minneapolis. It had a capacity of about 50,000 bushels and was nearly full of wheat.

L. C. Barnett of Minneapolis, Minn., builder of the Round Grain Elevators, has taken the contract to build a 30,000 bushel elevator at Elgin, Dak., for James Dunlap. The house is to be completed by July 1.

Messrs. G. W. & C. A. Lane, mill furnishers at Exeter, N. H., have just completed a contract at Beverly, Mass., for furnishing and putting in the machinery for J. W. Dodge's new corn mill at that place, many new devices of their own invention being introduced. Mr. Dodge writes us that everything is working satisfactorily.

Messrs. Atchison, Bede & Shute of Coon Rapids, Iowa, have purchased a 25-horse power engine to run their elevator. They are also building an addition to it so that when completed the elevator will be 48x24 feet, and 60 feet high, with engine room 16x24 feet. When the addition is made they will have the largest elevator between Marion and Council Bluffs.

Wm. Eckert, grain dealer of Meriden, Ill., loser to a considerable amount in grain speculations, has "skipped;" liabilities, \$8,000 to \$10,000, with only a few hundreds of assets, the building being sold on a bill of sale to secure a loan. The principal losers by the failure are a number of farmers in Meriden who had grain in store in the Eckert elevator, these men losing some 2,600 bushels of corn.

The plans for the Espenchied Elevator, to be built at Hastings, Minn., as originally drawn, are being altered by Chisholm Bros. & Gunn, and as soon as they are finished the work on the elevator will be inaugurated and pushed with great vigor until it is completed. As changed, the elevator will be 50x76 feet on the ground, and 110 feet high. Adjoining on one end will be an independent building 66x50 and six stories high for cleaning machinery. The elevator will contain 64 bins, and have a storage capacity of 100,000 bushels. Two railroad tracks will pass the side for shipping and receiving by rail, and on the other side will be three receiving hoppers for street deliveries of grain, enabling three teams to unload at once. The street deliveries are said to figure as a very large item in the receipts at Hastings. The cleaning building will be fitted up with the very best line of cleaning machinery, and will be furnished with power from the engine of the elevator proper by a wire cable. The plans are being drawn with a view to some time building another elevator of same style and size alongside of the one now about to be started on.—*Northwestern Miller*.

The grain trade of Stockton, Cal., is reported at over 100,000 tons annually, and is the most important of its industries. There is a clear perception on the part of the careful observers and business men there, that notwithstanding the great natural advantages of the place, the active competition of the seaboard will not allow any neglect of intelligent effort in its management, or any attempt at monopolies in transportation or general trade. The wheat trade of Stockton, which first became of importance in 1868, has fluctuated from natural causes in annual receipts and shipments from 100,000 to 200,000 tons. The storage capacity afforded by the different warehouses, aggregates 113,000 tons, distributed as follows:

Farmer's Co-operative Union.....	45,000 tons
Miller's Warehouse.....	15,000 "
Stockton Warehouse.....	24,000 "
Baggs' Warehouse.....	15,000 "
Sperry's Warehouse.....	8,000 "
Miscellaneous.....	6,000 "

The location of these warehouses for shipping is excellent, and the rates, \$1 per ton, reasonable. On this account wheat here has brought a better price the past ten years than at other points in the state. The completion of the Southern Pacific Railroad, opening up a new route for wheat to the Eastern and European markets, will give this place an increased advantage as a terminal point, enabling her at low prices to ship direct to New Orleans and the Gulf, and open a better market for her flour. The total receipts in Stockton of the wheat crop of 1882 were 100,732 tons, and though not as large as in previous years, the prices were more satisfactory. The principal dealers in grain are: J. D. Peters, Stewart & Smith, I. S. Bostwick, Geo. Hart, H. E. Wright, Sperry & Co., R. B. Lane, The Stockton Milling Co., The Farmers' Co-operative Union, and the Stockton Warehouse.

GRAIN STORAGE IN MILWAUKEE.

The total grain storage capacity of the elevators of Milwaukee in 1882 was 5,530,000 bushels; receiving capacity 580,000 bushels, and shipping capacity 1,000,000 bushels per day. Five of the elevators are owned and used by the Chicago, Milwaukee & St. Paul Railway Company, having an aggregate capacity of 3,130,000 bushels. Messrs. Angus Smith & Co. own three elevators, with an aggregate capacity of 2,150,000 bushels, built for the use of the Chicago & Northwestern Railway. The Chicago, Milwaukee & St. Paul elevators receive grain from the Wisconsin Central and Milwaukee & Northern Railroads, and the Chicago & Northwestern elevators from the Milwaukee, Lake Shore & Western Railway. The Northwestern Marine elevator, 250,000 bushels capacity, receives grain from vessels and teams, and is not connected with any of the railroad tracks.

Most of the grain received from ports along the west shore of Lake Michigan, in small cargoes, is discharged at this elevator.

GRAIN ELEVATORS.

DESIGNATION OF ELEVATORS.	PRESENT ACTUAL STORAGE CAPACITY BUSH.	RECEIVING CAPACITY PER DAY BUSH.	SHIPPING CAPACITY PER DAY BUSH.
C., M. & St. P. Ry. Co.'s Elevator A.	850,000	90,000	150,000
" " " " B.	650,000	75,000	120,000
" " " " C.	320,000	50,000	80,000
" " " " D.	300,000	40,000	100,000
" " " " E.	1,000,000	100,000	175,000
Angus Smith & Co.'s Elevator A.	850,000	90,000	150,000
" " " " B.	900,000	90,000	150,000
" " " " C.	200,000	25,000	40,000
" " " Warehouse....	200,000
Northwestern Marine Elevator....	250,000	20,000	40,000
Total.....	5,530,000	580,000	1,005,000

The storage charges remain as established in 1877, and for the first ten days or part thereof are 1½ cents per bushel, and for each additional ten days or part thereof, ½ cent per bushel. Winter storage commences on the 20th of November and terminates on the 15th of April. During that period, when four cents per bushel shall have accrued at the foregoing rates, the grain is not subject to additional charge. The elevators reserve the right to charge on grain that may become heated or otherwise out of condition, while in store, one cent per bushel for every five days or part thereof, to take effect five days after public notice shall have been given. This very seldom occurs. The weigh-master elected by the Chamber of Commerce is authorized to charge for super-weighing the weighing of grain at the rate of twenty-five cents per car load from or into railway cars, and thirty cents per 1,000 bushels from elevators into vessels.—*U. S. Miller*.

THE GROWTH OF THE AMERICAN GRAIN TRADE.

The growth of the American grain trade has been the greatest of that of any trade ever known, and is startling by its phenomenal magnitude. In the light of the information afforded by statistics, the United States may be deemed the granary of nations. A letter in Bradstreet's thus refers to the business:

"The normal position of this country, whether our crops are abundant or deficient, is that of an exporter of grain. So generally is this fact known that it has been remarked for many years by sea captains that one can purchase a barrel of flour and pork at any port in the world.

"It may be said England is the largest importer of grain, and the United States is the largest exporting country. Within the last ten years the United States has completely outranked all other countries, including Russia. Previous to 1878 the latter had been at the head of the list.

"Our power of producing grain has increased in a greater ratio than the growth of population during the last forty years. Our exports have been during the years ending June 30, as follows:

EXPORTS BREADSTUFFS.

ANNUAL AVERAGE OF	WHEAT AND FLOUR IN BUSHELS.	INDIAN CORN, BUSHELS.	TOTAL GRAIN, WHEAT, CORN, BUSHELS.	BUSH. EX-PORTED PER CAP.
5 years ending 1845.....	6,864,000	1,827,571	8,691,571	0.48
5 years ending 1850.....	14,721,773	11,235,131	25,956,904	1.28
5 years ending 1855.....	16,438,619	5,914,495	22,353,114	0.89
5 years ending 1860.....	23,617,982	6,810,321	30,428,303	1.05
5 years ending 1865.....	40,691,314	10,341,591	51,032,905	1.52
5 years ending 1870.....	27,860,388	10,682,672	38,543,060	1.00
3 years ending 1873.....	47,528,193	28,852,719	76,380,912	1.89
Year 1874.....	91,510,398	35,985,831	127,496,229	3.08
Year 1875.....	72,912,817	30,025,086	102,937,903	2.39
Year 1876.....	74,750,682	50,910,532	125,661,214	2.84
Year 1877.....	57,043,996	72,632,611	129,676,607	2.81
Year 1878.....	93,139,296	67,191,960	160,331,256	3.77
Year 1879.....	148,000,000	80,000,000	228,000,000	4.44
Year 1880.....	183,309,880	106,000,000	289,309,880	5.78
Year 1881.....	184,000,000	91,000,000	275,000,000	5.33
Year 1882.....	118,000,000	43,000,000	161,000,000	3.04

"Nothing in the history of the commerce of nations exceeds this enormous increase of exports of breadstuffs during the last forty-two years. It is equal to an aggregate increase of 3,200 per cent., or when the shipments are compared with population, it is shown to have increased from 48-100 of a bushel to 5 78-100 bushels capita, of 1,104 per cent. The causes for this wonderful development of the export of breadstuffs are not difficult to find. The wonderful improvements made in this country in agricultural implements, in the plow, the cradle, etc., early in the century, astonished Europe, and enabled this country to increase the production of grain. These improvements were followed by the opening of the Erie Canal, which joined the waters of the ocean with thousands of miles of our great inland lakes. Thus the cost of production was lessened by labor-saving machines, and the cost of distribution was decreased by extended and cheapened waterways."

The *Investigator* is mistaken when it says that "the Cincinnati Chamber of Commerce has perfected its proposed mutual life organization." The one proposed as an organization of the Chamber was defeated. The one that has been organized is entirely independent of the Chamber, and in no wise under its control, though it proposes to not accept any persons as members who are not members of the Chamber of Commerce. The defeated plan was after the New York Produce Exchange and the Stock Exchange of New York; the association organized is not after that plan.—*Cincinnati Price Current*.

THE PROSPECT FOR CORN.

The annual crop review of Robert Lindblom & Co., of Chicago, was made public June 9. The review comprises reports from nearly 1,000 points in the leading corn states, and gives a comprehensive review of the corn situation. Inquiries were sent by Lindblom & Co. during the last days in May to 1,100 points in the principal corn states, ten in number, asking for information concerning the present condition of corn, acreage planted, damage done by cold and wet, etc. The condition of corn is generally very good. There is large increase in acreage planted this year, especially in the winter-wheat states, where thousands of acres of ruined wheat have been plowed up and planted to corn. The damage done by cold weather and rains in May and the latter part of April appears to have amounted in most cases to but little more than the delaying of planting and retarding of the growth of grain after planting. The warm weather, which set in about June 1, changed the aspect of affairs very much, and there is promise of a large yield. In sections where, because of poor quality of seed, or bad condition of soil, corn did not come up, full acreage has, in nearly all cases, been replanted. The state of Kansas promises to produce but little below 200,000,000 bushels. Missouri will largely increase her production and the per cent. of increase in Illinois will not be much less. Ohio it is estimated will produce nearly 100,000,000 bushels. Of the forty-eight counties in Wisconsin heard from, twenty-eight report an increase in acreage of from two to twenty-five per cent. while but two report less acreage than last year. Nearly every county now sends a favorable report of the outlook. Of thirty counties in Kansas representing fairly different sections of the state, twenty-three report an increase in acreage of from ten to thirty-three per cent. and three a slight decrease. Reports are uniformly good as to the general outlook. Of thirty-one counties in Illinois, covering well the different portions of the state, thirteen report increased acreages ranging from five to thirty-three per cent. and five a decrease of from five to twenty-five per cent. Of fifteen Indiana counties nine report an increase in acreage, while none report a decrease. In Indiana frost did some damage, but replanting has replaced the damage. Of thirty-one counties in Iowa eighteen give an increase in acreage of from ten to twenty-five per cent. and three a slight decrease. Of sixteen Ohio counties five give an increase of from five to thirty per cent. and three a decrease of from five to fifteen per cent. Wisconsin makes a more unfavorable showing than any of the ten states. Of fifteen counties in Southern Wisconsin four give increased acreage and five a decrease in acreage. Unseasonable weather has been the sole trouble in Wisconsin. Planting has been delayed until in some localities it is too late to raise more than fodder. A dozen Kentucky counties, with but two exceptions, report an increase in acreage. Of fourteen counties in Minnesota seven give an increase and four a decrease. Only two counties of the entire number heard from, report any damage by worms. While no estimate aggregate yield of the ten states is attempted, increased acreage and the general favorable stand warrants the belief that the growing crop will exceed the crop of 1882 at least twelve per cent.

THE CRAZE FOR SPECULATION.

The intense eagerness with which the American, from the boot-black to the millionaire, enters into speculation, in spite of the endless lessons of experience in defeat and fraud, is an astounding evidence of the vitality of an idea in the teeth of the logic of fact and reason. On the wave of reaction from the Stock Exchange dealings of earlier years, when gold ruled the ring, the crowd now press upon the grain and petroleum markets and gamble with the ardor of pandemonium, in figures that sink the legendary and fabulous out of sight. In its laudable endeavor to open the eyes of these blind, cross-road wealth seekers, especially of the rural persuasion, the *Chicago Tribune* brings to their notice some of the facts as to the past and present condition of crops, as bearing upon the estimates of our grain reserves. The crop of wheat last year in this country was one-fourth above the average, and that of England a gain of one-sixth. If our yield this year should fall to an equivalent of eleven months as against the fifteen of last year, we should then have an average of twenty-six months for the two years, indicating a more than average supply. This would justify the anticipation of not more than an average price. The present speculative estimates of shortage have raised the

price of wheat to \$1.15, more than eighteen cents above the average price in gold for the last twenty-three years. This, the *Tribune* says, represents no rational measure of the effect of the present year's estimated shortage. It represents a speculative craze, based on no knowledge of the present value of wheat, whether more or less, and whose outcome will be the swallowing of the minnows by the whales, and infinite sorrow and loss among the country crowds whose wisdom is fairly represented in the wagon loads of letters that were received by the Flemming sharks and their representatives. But there is little hope of convincing this ever replenished crowd of feeble minded that seem to comprise the rank and file of the world's population; they will go on as ever depositing their "margins" with the holders of the stakes, and return home again exceeding sorrowful, but scarcely wiser, and revolving in their minds the query, how did they come to lose the game?

"PUTS" AND "CALLS."

Dealings in so-called "puts" and "calls," in grain or any other speculative articles, although declared by the Courts illegal, as purely gambling transactions, and entirely dependent "on honor" for their fulfillment, parties having no legal recourse if the contract is broken, are increasing in volume, and are accepted by brokers without question. These terms, frequently explained, are still not always fully understood by the outside public, and the adverse decision of courts has erroneously been supposed to include all sales or purchases for future delivery, or optional as to time. These terms are technical, used to cover transactions legitimate in form, but where there is no intention of transferring the grain, but simply of paying the differences from the market price at that time by the losing party. A "put" is the purchase of the privilege of delivering to the seller of say 5,000 bushels of grain, at a given price and a stated time. When the time arrives, if the buyer finds the market price has decreased, he might deliver the grain and demand the contracted price, pocketing the difference; but these transactions are always completed by the seller paying this difference in cash. A "call" is the reverse; the purchaser buys the privilege of demanding the delivery of the grain at the given price and time. If the market price rises above that contracted for as in the former case, the grain might be demanded, but it never is, the difference being paid by the seller. Of course, in either case, should the market rule in the opposite direction to the one supposed, the buyer would have the difference to pay. These "betting" transactions are largely made in order to partially at least balance the risks of *bona fide* sales or purchases. The usual differences between the prices of "puts" and "calls," on a steady market, and the regular prices, are from one-half to one cent per bushel, but in seasons of violent fluctuation these "privileges" may range on up to five, or if the time be long, to ten cents per bushel higher than the market prices at the time.

THE WHEAT CROP.

The reports of the Departments of Agriculture on June 9 show the condition of winter wheat lower than in May throughout the entire area, with few exceptions. The decline amounts to 4 points in Connecticut, 14 in New York, 2 in Ohio, 8 in Indiana, 15 in Illinois, and 7 in Missouri. It is slight in Michigan, and generally throughout the South. The general average condition is 75, against 83 in May. In June, 1882, it was 99 for winter wheat. It is by states, as follows:

Connecticut.....	92	Arkansas.....	80
New York.....	63	Tennessee.....	85
New Jersey.....	101	West Virginia.....	88
Pennsylvania.....	97	Kentucky.....	77
Delaware.....	83	Ohio.....	40
Maryland.....	98	Michigan.....	80
Virginia.....	98	Indiana.....	67
North Carolina.....	95	Missouri.....	70
South Carolina.....	95	Illinois.....	51
Georgia.....	96	Kansas.....	89
Alabama.....	95	California.....	88
Mississippi.....	83	Oregon.....	90
Texas.....	86		

These figures indicate the condition of growing wheat, without reference to the loss of area by plowing up the winter-killed areas.

The spring wheat area has been increased about half a million acres, or nearly 5 per cent. Wisconsin reports a reduction of 1 per cent.; Iowa, 2; Minnesota makes an increase of 5 per cent.; Nebraska, 7; Dakota, 4, and Montana, 35. The spring wheat states have an acreage of nearly ten million acres. The condition of spring wheat is everywhere high, averaging 98, the

same as last year. The area of barley is increased 5 per cent. The total acreage is about 2,350,000 acres. The condition averages 97. The increase in the area of oats is 4 per cent.; area, nearly 19,200,000 acres. The condition is high, averaging 96.

A GREAT WHEAT COUNTY.

The *Stanislaus County News*, California, estimated early in May the present crop of wheat and barley in that county at over 6,000,000 bushels. This is based on careful investigations and comparisons with previous years. The heaviest wheat yield of the county was 7,500,000 bushels in 1880, an exceedingly favorable season. The benefits of careful tillage, developed by the experiments in three seasons ended 1876, by such men as Reyburn, Park, Dale, and others carefully reported, is seen now, especially in the middle parts of the county, and from being perhaps the most slovenly cultivators of the soil in the state, the farmers of Stanislaus may now "lay claim to being among the best," and the county as "being the banner wheat-producing county of the state."

The Trade.

Messrs. Poole & Hunt of Baltimore, Md., are now delivering the work for the new elevator at Newport News, Va.

The Great Western Mfg. Co. of Leavenworth, Kan., are doing a large amount of elevator and mill work for points all over the West.

The Chicago Rawhide Mfg. Co. are placing in their works a new power press, a fleshing machine, a power stretcher, and a thumping machine.

Messrs. G. W. & C. A. Lane of Exeter, N. H., are full of orders, which they have received from all over the country, for their flour mill and elevator machinery.

Articles of incorporation of the Spalding Elevator Construction Co., Eau Claire, Wis., with a capital of \$112,000, have been filed in the secretary of state's office at Madison, Wis.

The Railway Grain Transfer Co. of Chicago, has been incorporated with a capital of \$1,000,000. The incorporators are Jas. W. Sykes, Horace G. Bird, Nathan A. Skinner, Alfred P. Bigelow, Marvin S. Chase, and Chas. L. Rising.

The Link-Belt Machinery Co. of this city are building 8,000 feet of link-belt to go to China. During the week the company have taken contracts amounting to \$13,000 to furnish two flouring mills in Indiana. They are placing in the Indianapolis Car & Manufacturing Co.'s works a third conveyor, and a grain elevator and conveyor, with 60-foot centers, in Hobart & Snyder's elevator, at Cherokee, Iowa.

The following parties have recently placed orders with the Pond Engineering Company of St. Louis, to apply the Jarvis Furnaces to their boilers: Wacker & Birk Brewing Co., Chicago, one boiler (their second order); Dutro Car Wheel Co., St. Louis, one; Rich Hill (Mo.) Water Works, two; Crescent Mill and Elevator Co., Denver, Col., three; N. Long & Co., millers, Russellville, Ky., three, and J. D. Sherwood, Dartford, Wis. The latter party will use wet bagasse from sugar cane for fuel.

A representative of the *San Francisco Journal of Commerce* has been looking around Racine, Wis., and this is what he has to say of the well-known firm of Johnson & Field: They commenced work in a small frame shop, and during the first year, 1876, they made and disposed of about 300 farm and warehouse mills, since which time the product of their shops has steadily increased until the year 1882, when they sold 2,500 mills, a result of which they may justly feel proud, especially when taken into consideration that a large part of this success was attained through nearly four years of commercial depression and with a very limited capital. Their lack of capital was fully compensated for by the ripe experience each member of the firm brought to bear upon their work, which, together with their determination to allow none but the very best mills to be turned out of their works, accounts for their remarkable success in the face of so many adverse circumstances. One of their specialties, and with which they have been most successful, is their warehouse mill, adapted to grain dealers' and millers' use. It is safe to say that in this branch of their business they have made and sold more of this class of mills than any other house in the trade since they have been in business. The steady increase of their business has necessitated several additions to their shops, the last one being a handsome and roomy engine house with a 50-horse power engine, and also a lumber drying house and packing room. They have also added several fine pieces of machinery, and their shops are now completely fitted up, and the firm is in a position to compete with any fanning mill house in the country, both as to capacity and the quality of work manufactured. They have recently constructed some fine specimens of a dustless mill and separator, for warehouse, elevator and millers' use, which are a credit to the firm, and challenge anything in the same line made in this or any other country.

For Sale.

FOR SALE.

A grain elevator, storage capacity 10,000; run by horse power. Everything as good as new. Located at one of the best grain points in the state. Also corn cribs, lots, coal shed, office and scales. Price \$3,500 cash. For particulars and reason for selling, address

JAMES WILLOX,
Exira, Audubon county, Iowa.

FOR SALE.

Elevator, office, scales, lumber sheds, corn cribs, etc., with exclusive privileges, at Metz, Iowa, on the Chicago, Rock Island & Pacific Railroad. Address

Box 118, Newton, Iowa.

FOR SALE.

A very desirable grain and stock business in Sac County, Iowa. Satisfactory business for past years shown and ample reasons for selling. Address

IOWA ELEVATOR,
Care AMERICAN ELEVATOR AND GRAIN TRADE,
184 and 186 Dearborn St., Chicago, Ill.

Special Notices.

The Chicago Scale Co. sell Scales of all kinds, also Portable Forges and Blacksmiths' Tools of all descriptions at about one-half usual prices. Buyers will save money by sending for their Price List.

Elevator Men—Howes, Babcock & Ewell, of Silver Creek, N. Y., make a full line of wheat cleaning machinery. Read their advertisement on first cover page.

Grain Commission Cards.

ANDERSON, BISHOP & CO.,

Commission Merchants,

Grain, Mill Feed and Hay.

120 North Street, - Baltimore, Md.

Grain Commission Cards.

Established 1860,

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Flour, Grain, Corn, Oats and Mill Feed,

Corn Goods, Hominy, Grits, Pearl Meal, Corn Flour
AND FEED MEAL,
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ESTABLISHED 1858,

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Liberal Advances on Consignments.

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Prompt Attention given to any business intrusted to our care.

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Grain and Provisions for Cash or Future Delivery
Bought, Sold, and Carried on margins.

No. 78 La Salle St., CHICAGO. Chamber of Commerce, MILWAUKEE.
Live Stock Offices at Stock Yards in Both Cities.

J. A. Brown, Estab- E. H. Chandler,
H. E. Chandler, Chicago. lished G. W. Chandler,
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WARNER & WILBUR,

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Refer by permission: B. L. Smith, Cashier Hide and Leather National Bank, Chicago, Ill.; Col. E. A. Bowen, President First National Bank, Mendota, Ill.; Chas. C. Macy, Cashier Farmers' National Bank, Hudson, N. Y.; Wm. Seymour, Cashier First National Bank, Hudson, N. Y.; Fred'k Hill, Cashier Tanners' National Bank, Catskill, N. Y.; or O. P. Collier, President First National Bank, Battle Creek, Mich.

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Careful attention given to Filling Option Orders.

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GRAIN AND MILLSTUFFS

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COMMISSION MERCHANTS,

GRAIN, FLOUR AND MILLSTUFFS,

No. 10 Chamber of Commerce Building, - - - MINNEAPOLIS.

Orders for and Consignments of Milling Wheat a Specialty.

ESTABLISHED 1866.

J. VAN WINT,

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REFERENCES AND CABLE CODES FURNISHED.

GOODRIDGE, FIELD & CO.;

GRAIN AND FLOUR,

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Business attended to at Newport News (Eastern Terminus
C. & O. Railroad).

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—AND—

Wholesale Dealer in Flour and Bran,

MINNEAPOLIS, MINN.

Careful Attention given to Consignments, and Orders for Flour
Bran filled at Lowest Prices.

A GREAT SAVING IN THE RUNNING OF GRAIN ELEVATORS!

THE LOTZ PATENT

GRAIN SHOVELING MACHINE,

FOR UNLOADING CARS.

PAT. NOVEMBER 23, 1880, AND DECEMBER 14, 1880.

This machine works automatic. The hoist rope spool of each machine is driven from a line shafting by paper friction wheels, and all the mechanical movements in the machine are such that they will not wear, nor get out of order. A GREAT SAVING IN REPAIRS OF SCOOPS, in the WEARING OF ROPES, in LUBRICATING MATERIAL, and in REPAIRS ON MACHINE. The resistance on taking the scoop back into the car is much less than with other automatic machines. The length of pull of hoist rope can be instantly adjusted. The more economical operation of this machine as compared with others will pay its first cost in five years.

Eleven double machines of above construction have been set up and are in practical operation in Rock Island Elevator A, near Twelfth Street Bridge, Chicago, Ill.

MR. WM. LOTZ, CHICAGO: Office of FLINT, ODELL & CO., 151 Monroe St., Chicago, May 4, 1883.

DEAR SIR—We have been using your Patent Shovel Machines in Rock Island Elevator A for several months, and are well satisfied with them. We estimate a saving of 50 per cent. on shovels, 75 per cent. on rope and 60 per cent. on all over the Shovels previously used by us. Yours truly, FLINT, ODELL & CO.

For further information address

HOWARD IRON WORKS, Buffalo, N. Y., or

WM. H. LOTZ, Mechanical Engineer,
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162 Rats killed in 10 days, 20 rats in 1 day, in

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Manufacturer of

Portable,

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We will send any of the following named Books, postage free, on receipt of annexed prices:

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Address MITCHELL BROS. CO.,

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PAYNE'S 10-Horse Spark-Arresting

Portable Engine has cut 10,000 ft. of Michigan Pine Boards in ten hours, burning slabs from the saw in eight foot lengths.



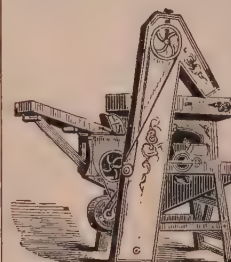
OUR 10-HORSE we Guarantee to furnish power to saw 8,000 feet of Hemlock boards in ten hours. OUR 15-HORSE will cut 10,000 ft. in same time.

Our Engines are GUARANTEED to furnish a horse-power on 1/4 less fuel and water than any other Engine not fitted with an automatic cut-off. If you want a Stationary or Portable Engine, Boiler, Circular Saw Mill, Shafting or Pulleys, either castor Medart's Patent Wrought Iron Pulley, send for our ILLUSTRATED CATALOGUE, "No. 34," for Information and Prices.

B. W. PAYNE & SONS,

Corning, N. Y., Box 1448.

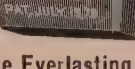
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Over 15,000 in use. They do not Clog or Heat.

Grinds 60 bushels per hour. No other mill will do an equal amount of work with the same power. All feed mills of similar construction to the Challenge are infringements of the patents owned by us. A recent decision of the U. S. Court has affirmed our rights to these patents, and we caution all parties against buying feed mills that infringe on said patents. For Descriptive Circular of Feed Mills, Wind Mills, Corn Shellers, Feed Cutters, Horse-Powers, Wood Saws, Steamers, Pumps, etc., address CHALLENGE WINDMILL AND FEED MILL CO., Batavia, Ill.

The Everlasting Elevator Bucket Co.,



Manufactures three of the best elevator buckets on the market. The "Everlasting" is round faced, no corners to catch; superior carrying and emptying capacity, with patent malleable iron lip. Outwears any bucket in the market. The "Boss" has an oval front and square bottom. Light, strong, and durable; lip can be attached if desired. The "Keystone" is as near perfect as a square cup can be. The corners are rounded, with double bottom, and substantially made. Prices as low as ordinary buckets. Best of testimonials. Sold to mill-furnishers generally. Order from your furnisher or of us direct. They pack closely. Elevator Bolts at manufacturers' prices.

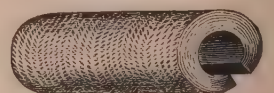
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BRADLEY'S

Insulated Air Coverings,

Made of Soft Felting, lined, and intersected with Asbestos paper.



For Boilers, Steam, Hot Air, Gas and Water Pipes. Prevents condensation of steam and radiation of heat.

SHIELDS & BROWN,

Manufacturers and Sole Proprietors, 78 and 80 Lake Street, Chicago. Send for illustrated descriptive circular, and name this paper.

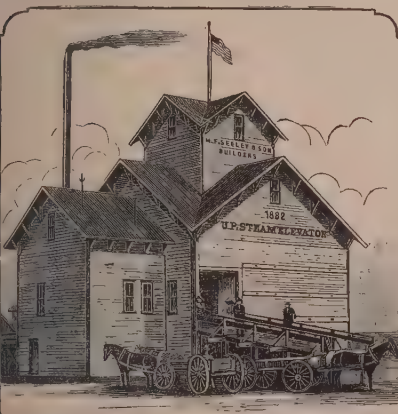
CORRUGATED IRON SIDING FOR GRAIN ELEVATORS A SPECIALTY.

PORT HURON, MICH., Jan. 20, 1882.
GENTLEMEN:—We take pleasure in saying that the thorough and workmanlike manner in which you have covered two Grain Elevators for our firm, warrants us in recommending your Iron work to any one wanting a first-class job in every respect.
Yours very respectfully,
J. E. & W. F. BOTSFORD.

DULUTH, MINN., March 20, 1882.
GENTLEMEN:—We take pleasure in saying that the iron covering put on our Elevator, "B," by you has given us entire satisfaction. We shall be pleased to recommend your work at any time.
Very truly yours, Lake Superior Elevator Co.
GEORGE RUPLEY, Supt.

CHICAGO, ILL., Feb. 18, 1882.
GENTLEMEN:—We congratulate you upon the successful completion of your large contract with us for the tin and corrugated iron covering of the Toledo & Wabash Elevator No. 5, at Toledo, Ohio. It gives us pleasure to commend the excellence of the work done by you there, and we trust that our business relations thus pleasantly begun may continue in the future. We shall be

Address,
28, 30 and 32 River Street,
J. F. SEELEY.



Oldest and Largest Manufacturers in the
United States of
VULCANIZED RUBBER
Every Form, adapted to MECHANICAL PURPOSES.

Machine Belting
WITH
Smooth Metallic Rubber
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This Company has manufactured the largest Belts made in the world for the Principal Elevators at Chicago, Buffalo and New York.

Fire and Water Hose,
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"CABLE" HOSE, Circular, Wormless, Antiseptic, for the use of Hand Fire Engines, Force Mails, Factories, Steamers, and other uses.

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OF A
Superior Quality,
And of all the various Sizes used.

**Original Solid
LACANITE EMERY WHEELS.**

Emery Wheels made on Cast-Iron Centre if desired.

**PATENT
Rubber Back Square Packing.**
IN THE WORLD for Packing the Piston Rods and Stems of Steam Engines and Pumps.

**CORRUGATED
Rubber Mats and Matting,**
For Halls, Flooring, Stone and Iron Stairways, etc.

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Belting and Packing Co.,**
WAREHOUSE,
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NEW YORK.
JOHN H. CHEEVER, Treasurer.



MOSEY & THOMPSON,

CLEVELAND, OHIO.

pleased at all times to recommend your work to any one who may inquire of us.
Yours very truly,
J. T. MOULTON & SON.

OFFICE OF TOLEDO & WABASH ELEVATOR CO.,
TOLEDO, OHIO, Feb. 23, 1882.

GENTLEMEN:—All our Elevators are covered, sides and ends with corrugated iron. That put on by you has stood the test for about eight years, and is still good. I can recommend your firm as reliable for good work.
Truly yours,
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or Canada.

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MACHINERY.

Engines, Cleaners, Corn Shellers, Belts and Buckets, Etc., Etc.

With our experience we can save you on these items more than cost of Plans. Correspond with us and save costly mistakes.

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At the Millers' International Exhibition.
SPECIAL FEATURES.

Seamless Rounded Corners.
No seams to burst; no corners to catch or clog; "takes" easily, and delivers promptly—not liable to carry down the back leg.

Shovel Edge, Curved Heel, Smooth Finish.
And freedom from projecting seams, rivet heads, bands, etc., makes it run easy, saves power, reduces strain or wear and tear of belting, etc.

It is Strong and Durable.
Will outwear three or four hand-made buckets. It meets the advanced ideas of the times successfully, and is nearer perfection in every respect than any other bucket made.

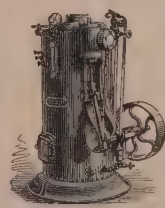
Leading Millwrights recommend it, and the best informed Millers approve and adopt it.

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BOOKWALTER ENGINE!

Effective, Simple, Durable and Cheap.



Especially adapted for the operation of small mill and Railroad Elevators, Farm Mills, sawing wood and the running of light machinery generally.

OVER 2500 IN USE.

Can be easily operated by any one of ordinary intelligence. Every Engine complete ready to run as soon as received. No Engine built so good and so low in price. Will give the

full power claimed.

3 1/2 H. Power, \$240 4 1/2 H. Power, \$280
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Fine new illustrated catalogue sent on application.

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You protect your buildings from the weather with paint; then why not at the same time save your property, as far as possible, from fire. The Chicago Fire-Proof Paint Co. manufacture a ready-mixed paint that accomplishes both objects, and is the only Paint made that is **RELIABLE** for both purposes. Railroad Companies, Saw Mill men, and manufacturers of all kinds, as well as thousands of others are using it. Send for circulars with testimonials, of which we have an abundance, that will satisfy the skeptical.

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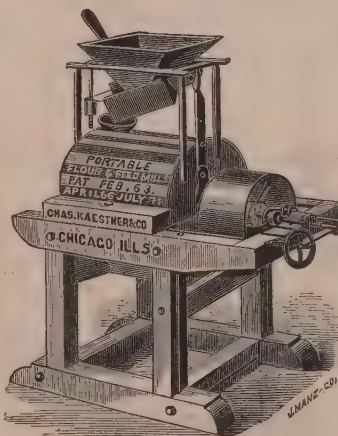
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Over 4,500 of our Mills in Use.

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Parties erecting Elevators will consult their own interests by sending for our illustrated Catalogue and references.

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Wrought Iron Tanks and Cast Boots Complete. Steam Engines and Boilers, Shafting, Pulleys, Etc.

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Horizontal Belt Conveyors, Tripping Machines, "Boots and Heads," "Legs" for Unloading Barges, Register Valves, Bin Bottom Valves, and Shipping Spouts

Are of the most efficient style. We are also prepared to furnish

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Made under heavy hydrostatic pressure. Samples of our work may be seen at the

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Organized 1882.

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SPALDING ELEVATOR CONSTRUCTION COMP'Y

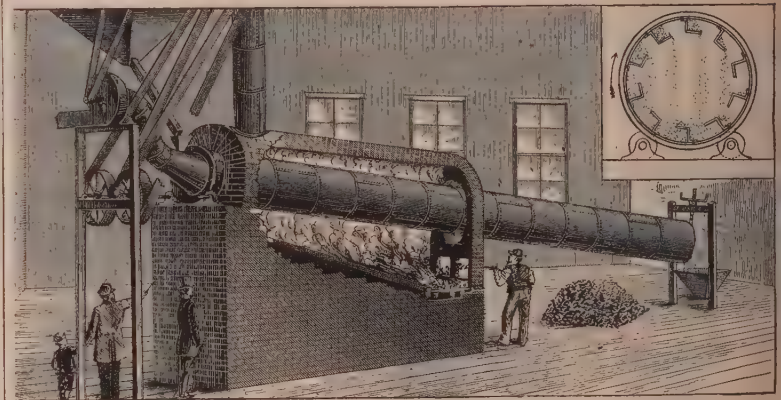
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For Drying and Cooling, in one Operation, DAMP AND MUSTY GRAIN

Of all Kinds. Particularly adapted to drying CORN for MEAL, and to the use of Elevators, for Cooling "Hot" Grain, and bringing new corn up to Grade. Machines for sale by

S. E. WORRELL, Hannibal, Mo.

Read the following strong letter of recommendation. (The italics are just as they appear in the original.)

BALTIMORE, MD., February 16, 1883.

S. E. WORRELL, Esq., Hannibal, Mo.:
 DEAR SIR:—We are pleased to state that the No. 2 Drier we recently constructed and erected from your plans and drawings, for one of the largest of our elevator firms, is doing admirable service. It is drying and cooling from 50 to 60 bushels of corn per hour—some of it in a *very bad condition*. We have had ample means of comparison, as at the same mills and elevator they have one of the best Steam Driers, and an Oven Shelf Drier or Kiln. They find that yours does *more work and better work than either*. Though previously suspicious of the new-comer, they pronounce it the best.
 We unhesitatingly recommend it as the most perfect Machine for the purpose, of which we have any knowledge. Very respectfully,
 ZELL & DANER, Baltimore Engineering Agency.

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 Everything New.
 Estimates Furnished on Application.

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FEED MILLS.
 The cheapest and best mills in the world.
 Prices \$30 and upwards, subject to cash discount. Send for circulars to
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 Mention this paper.



Send for Catalogue and Prices.

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 MANUFACTURERS OF
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CARRY ENGINES and BOILERS IN STOCK for IMMEDIATE DELIVERY



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Anti-Friction Roller Detachable Chain Belting
 FOR TRANSMITTING POWER.

The only medium by which so nearly all the power applied is transmitted. The special feature about this chain, and which makes it superior to other chains for similar purposes, is the *Friction Roller* on the rivet, which takes off all friction from the sprocket, and nearly all from the rivet, and admitting of almost any desired speed.

ESPECIALEY ADAPTED

For Elevators, Drags, Carriers, Driving Heavy and Light Shafting, etc.

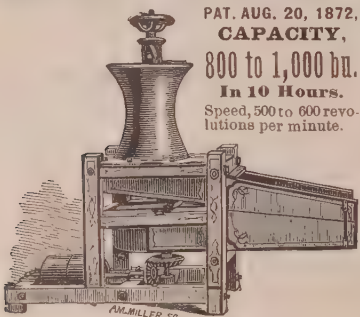
Send for Circulars. Manufactured and sold by the

LECHNER MANUFACTURING CO.,
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Also Manufacturers of the Lechner Coal-Mining Machines.

MONITOR CORN SHELLER!

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 CAPACITY,
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 In 10 Hours.
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Superior to all other shellers in simplicity, durability, and effectiveness in working. Runs with less power than any other sheller of equal capacity. Cleans the corn from the chaff, shells without breaking the cob, and will work with damp corn as well as dry. Can be adjusted to different size of corn ears without stopping the machine. Two styles made, geared, and not geared. Write for circulars and particulars.

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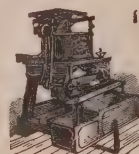


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 Corn-Mills and Millstones,
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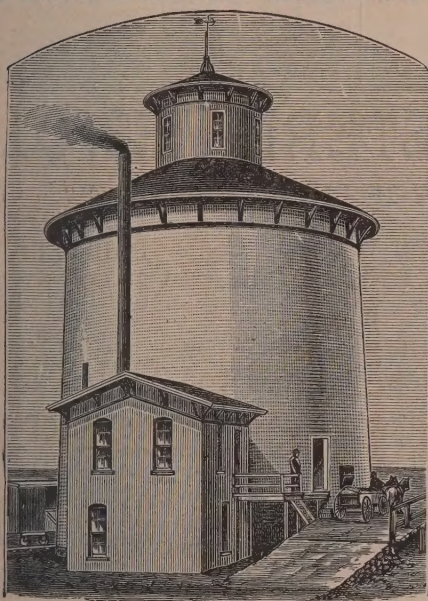
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For all Territory West of the Mississippi.

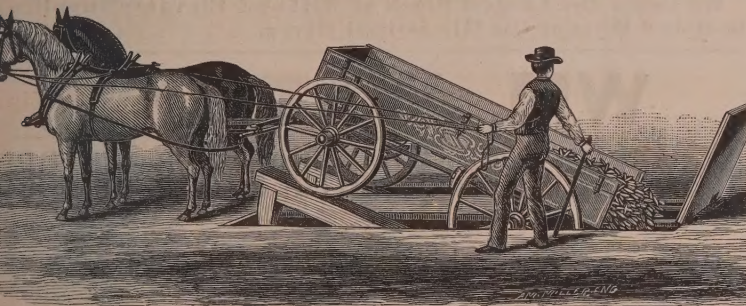
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The above cut is a fair representation of the Rail Dump in common use, on which we are collecting a royalty for past use, and licensing parties to continue to use and so put in New Dumps. Our patents on Rail Dumps fully cover this class of Dumps. Any one using Rail Dumps can readily decide by comparing his Dump with this cut, whether he infringes or not. We also control patents that cover Platform Dumps. Our prices are reasonable in settlements for past infringements, and for licenses to continue to use the Dumps. Prices given on application. See notice below.

NOTICE.

To Parties Using Grain Dumps.

Notice is hereby given that we have been retained to prosecute infringers of the following Letters Patent on Grain Dumps:

One granted to Noah Swickard, Oct. 13, 1868, No. 88,005. Reissued Dec. 20, 1870, No. 4,212, for Improvement in Wagon and Car Unloading Apparatus.

One granted to Samuel C. Kenaga, Oct. 20, 1868, No. 83,288, for Improved Dumping Platform.

One granted to Benjamin Walton, Nov. 31, 1869, No. 97,253, for Improved Dumping Machine, and

One granted to Wm. M. Hall, Sept. 6, 1870, No. 107,040, for improvement in Grain Dumps, and all persons or parties manufacturing or using Grain Dumps which infringe on any of the above described patents must make settlement for all past infringements, and take license in accordance with the usual terms, if they desire to continue to manufacture or use the same, or legal steps will be taken to force said Patents against all infringers.

Applications for licenses for using said patented improvements, and for settlement for past infringements should be addressed to

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BURNET & BURNET,

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For Storing and Drying Damp Grain.

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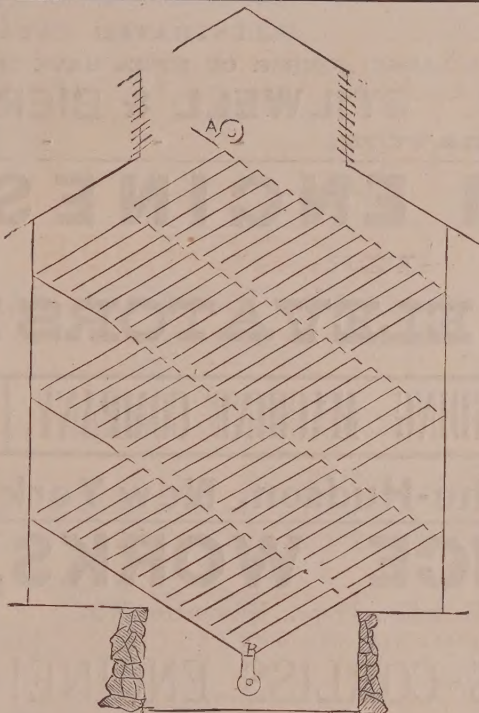
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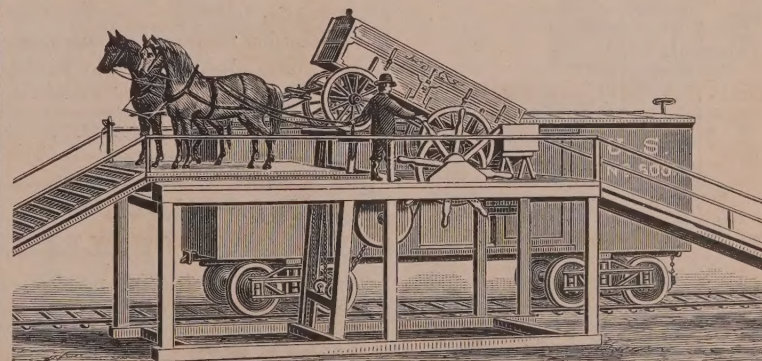
BY KRUEGER'S PATENT.

75 & 77 E. Ohio St., Chicago.

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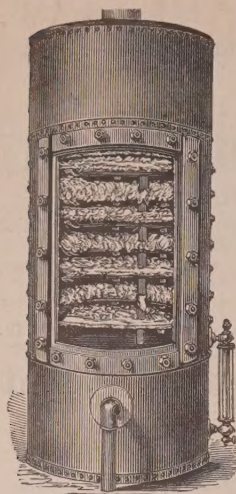
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The Hinman Dump possesses many advantages over other dumps that places its superiority beyond all question. The front end of the wagon is raised to any height desired, the rear end remaining stationary, necessitating full three feet less height of platform or driveway. There is no possibility of accident to horses or wagon. The wheel for elevating operates easily three or more dumps. Whilst especially designed for elevators, its superiority for portable and track use can be readily seen in the cut above. Elevator men can readily see that one-half the space is saved in dumping into the pit when used in elevator, or rail dump must be one-half higher for same pit room. When necessary a load of thirty or forty bushels of grain can be dumped around the mouth of the pit on top of driveway. Elevating wheel is ten feet in diameter. Cost of material, including driveway, \$40 to \$50. Spoke wheel and fixtures furnished at reasonable charges. Three of these dumps, in use since 1873, all worked from one wheel, can be seen at Elkhart Elevator, Elkhart City, Ill. A positive guarantee with every Dump, and ten to thirty days' trial must give satisfaction, or money refunded. Circulars and any further information cheerfully given by addressing

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Capacity, 75 to 100 bus. shelled corn per hour. Runs very light; is CHEAP, simple and durable.

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—FOR—

GRAIN ELEVATORS!

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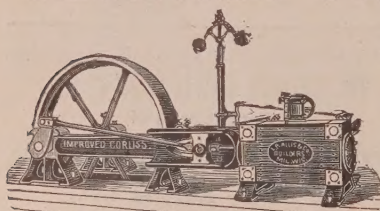
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OVER 250 OF THESE ENGINES ARE NOW IN USE, and references can be given. These engines have developed in expert trial and every day work **THE HIGHEST ECONOMY KNOWN IN STEAM ENGINEERING!**

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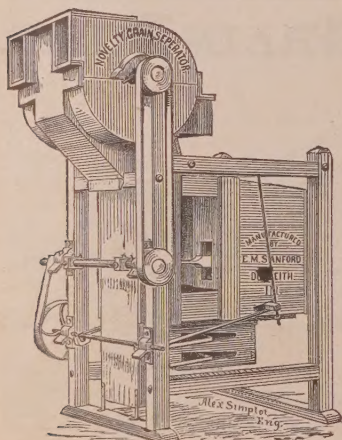
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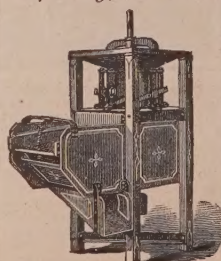
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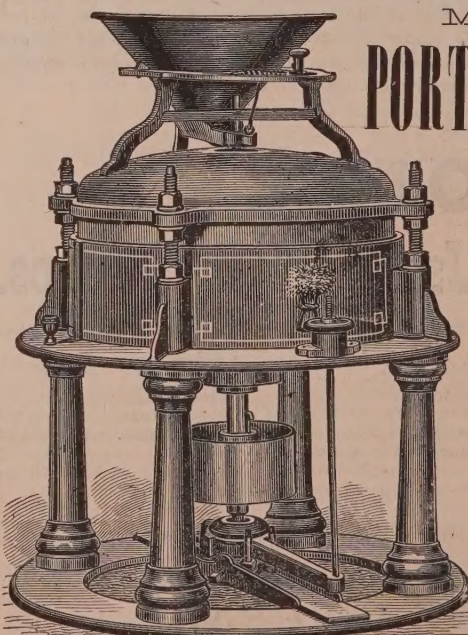
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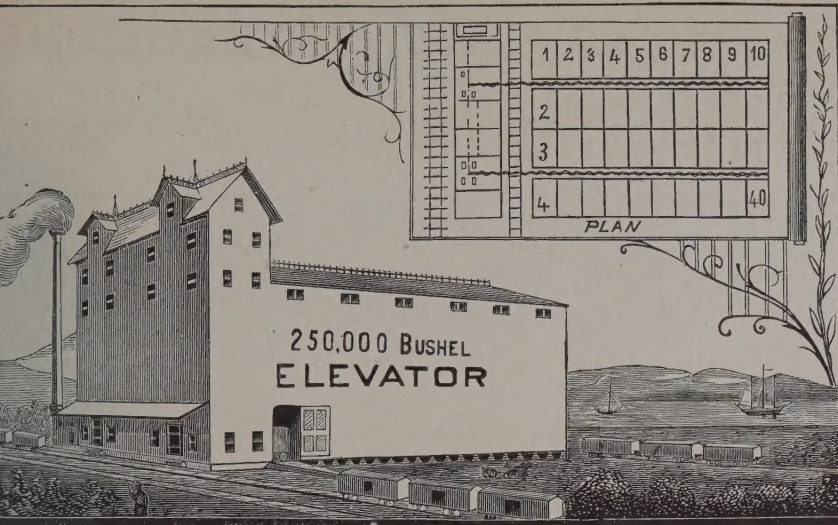
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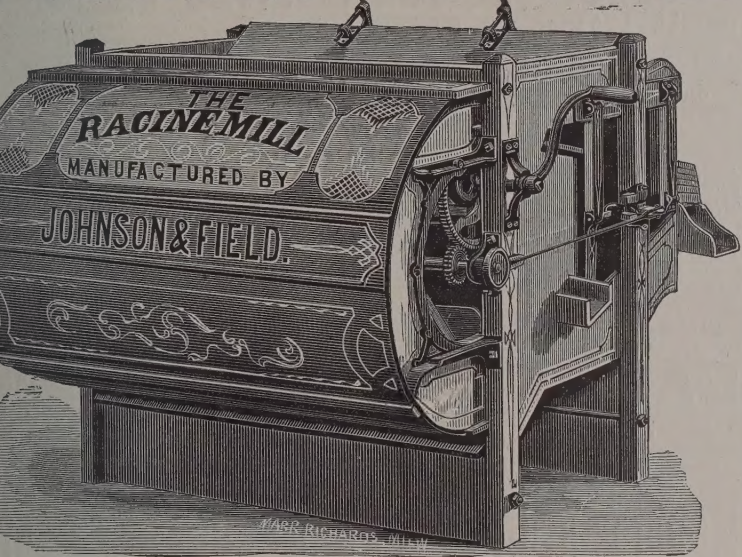
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The Condensing Engine will save from 25 to 33 per cent. of fuel, or add a like amount to the power, and consume no more fuel. Small parts are made in quantities, and inter-changeable, and kept in stock for the convenience of repairs, and to be placed on new work ordered at short notice.

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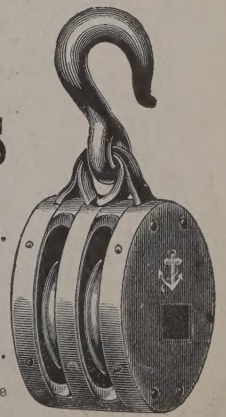
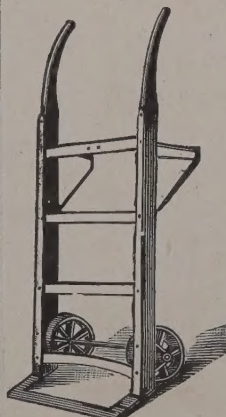
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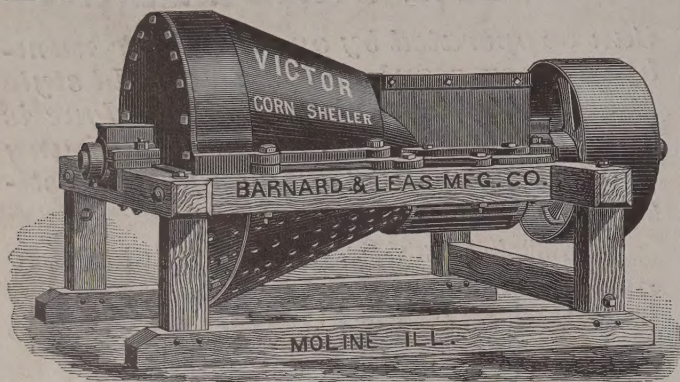
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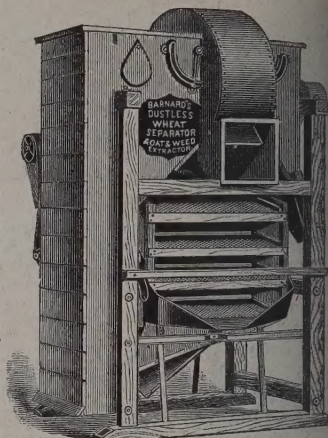
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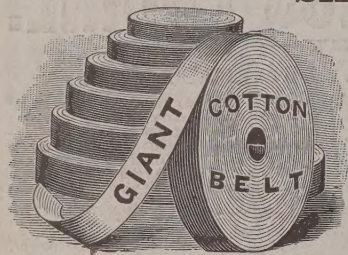
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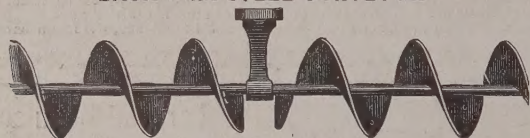
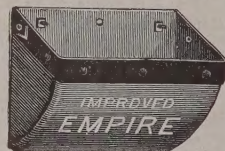
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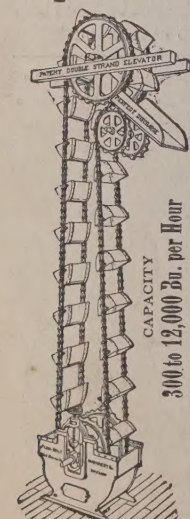


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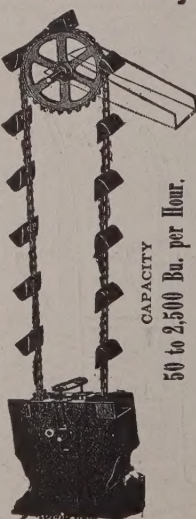
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And designed and furnished the Machinery for most of the Elevators in Buffalo, and a number of others elsewhere.

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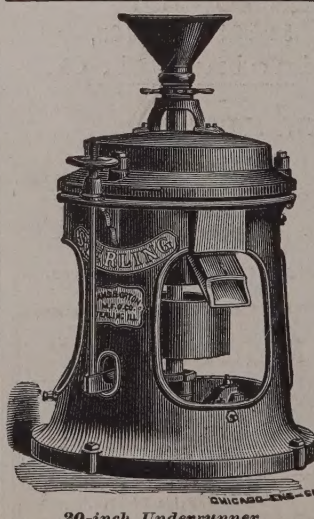
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